

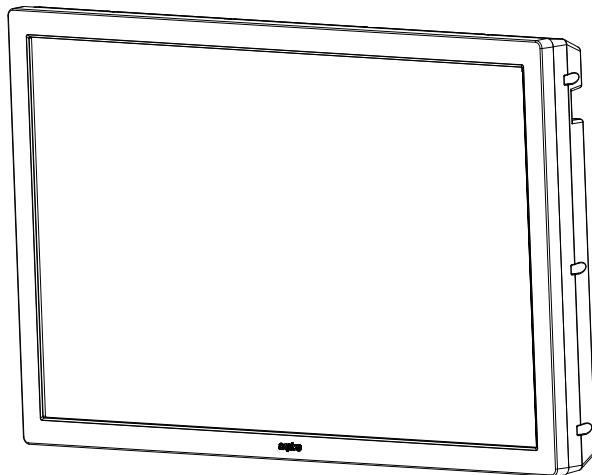


FILE NO.

LCD Monitor Service Manual

Model No. PID-42AE1
PID-42AS1

Service Ref.No. PID-42AE1-01
PID-42AS1-01



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Product Code: 113022900
113022903

Original Version

Chassis Series:UK5-B

Give complete "SERVICE REF. NO." for parts order or servicing. It is shown on the rating label at the cabinet back of the unit.

This LCD Monitor will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specification table.

Safety Notice

SAFETY PRECAUTION

- | | |
|---|---|
| <p>1: An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary of the converter transformer of the set.</p> <p>2: Comply with all caution and safety-related notes provided on the cabinet back, inside the cabinet, on the chassis or the LCD panel.</p> | <p>3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, isolation resistor-capacitor networks etc. Before returning any LCD to the customer, the service technician must be sure that it is completely safe to operate without danger of electrical shock.</p> |
|---|---|

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark $\triangle$ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is particularly recommended that only parts designated on the parts list in this manual be used for component replacement designated by mark $\triangle$. No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark $\triangle$.

Important recycling information.



Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately.

In the European Union there are separate collection systems for used electrical and electronic products.

Please help us to conserve the environment we live in!

Note: This symbol mark and recycle system are applied only to EU countries and are not applied to other countries of the world.



RoHS

.This product does not contain any hazardous substances prohibited by the RoHS Directive.
(You will find "R" or "Z" at the last digit of the serial number or an "RSF" label near the rating plate on the RoHS compliant product.)



WARNING

.You are requested to use RoHS compliant parts for maintenance or repair.
.You are requested to use lead-free solder.

Specifications

Power source: 100 ~ 240V 50Hz/60Hz

Colour system: PAL/NTSC/NTSC4.43/SECAM

AV terminal

AV1: Scart CENELEC Standard

Input: Composite video, RGB (5V RGB with 5V sync to pin 14) and audio-L/R

Output: composite video from AV3 and audio L/R

AV2: BNC

Input: RGB, H and V/Y, Pb, Pr and audio L/R

Output: RGB, H and V/Y, Pb, Pr

AV3: BNC

Input: Composite video

Output: Composite video

Audio Monitor Out: CINCH L/R

Audio Speaker Out: 2 x 6W

DVI

Input: DVI-D GROUP Standard

PC

Input: Mini D-SUB 15 PIN and Audio 3.5mm Jack

Serial Port: RS232C: Input/Output

Model name	Contrast Ratio	Screen (inches/cm) (viewing measured diagonally)	Display Native Resolution	Viewing angles	Dimension (W x H x D)	Weight (kg)
PID-42AE1	1000:1	42"/106.7 cm	1920 x 1080	H: 178°, V: 178°	1010.3 x 603.3 x 100 mm	18
PID-42AS1						

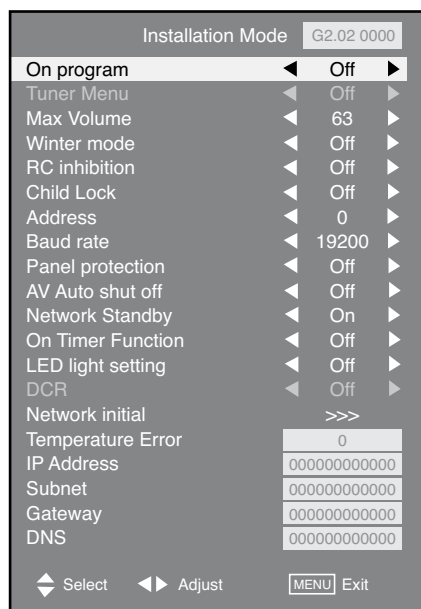
When ordering these products, give the Name and Type No. to the sales dealer.

On-screen Service Menu System

INSTALLATION MODE

To enter Installation Mode press and hold the green button on the remote control for 3 seconds.

Installation Mode allows the user to set up the function of the set.



SERVICE MODE

To enter Service Mode press the menu button on the remote control to display menu OSD and key in 3609 within 4 seconds.

❑ To select the service item and change data value

- + To select the adjustment item, use the P▲ or P▼ buttons.
- + To change the service data, use the Volume - (LEFT) or Volume + (RIGHT) buttons.
- + The data which is set in the service mode is stored into the memory IC automatically.

EXAMPLE: Source : CVBS2PAL/ALL
Properties: Normal Red
Data: 200

Diagram illustrating the mapping of service mode data to fields:

- Source : CVBS2PAL/ALL → ITEM NO.
- Properties: Normal Red → SECTION ITEM
- Data: 200 → VALUE

❑ To exit service mode

- + Press the MENU button or turn off the LCD Monitor by using the Mains switch.

Service Adjustment Data Table

□ Service Adjustment Data Table

Group/ Item	Item Name	Initial Data	Range	EEPROM Address	Description
1.ALL(General Data)	Normalred	200	128-225	0x94C	White Tone offset (Normal)
	Normalgreen	200	128-228	0x94D	
	Normalblue	200	128-228	0x94E	
	Warmred	210	128-228	0x94F	White Tone offset (Warm)
	Warmgreen	200	128-228	0x950	
	Warmblue	190	128-228	0x951	
	Coolred	194	128-228	0x952	White Tone offset (Cool)
	Coolgreen	200	128-228	0x953	
	Coolblue	208	128-228	0x954	
	Red	85	0-156	0x946	White Balance basic value (AV)
	Green	85	0-156	0x948	
	Blue	85	0-156	0x94C	
	Brightness	25	-7—58	0x93D	Brightness basic value (Normal)
	Contrast	35	-22—159	0x93E	Contrast basic value (Normal)
	Saturation	20	0—112	0x940	Saturation basic value (Normal)
	Hue	-20	-80-80	0x944	Hue basic value (Normal)
	Sharpness	7	0—14	0x942	Sharpness basic value (Normal)
	Picmodedynamicbri	-26	-101—49	0x92B	Brightness basic value (Dynamic)
	Picmodedynamiccon	218	150—225	0x92D	Contrast basic value (Dynamic)
	Picmodedynamicsat	240	0—400	0x92F	Saturation basic value (Dynamic)
	Picmodesoftbri	-26	-101—49	0x931	Brightness basic value (Soft)
	Picmodesoftcon	165	150—225	0x933	Contrast basic value (Soft)
	Picmodesoftsat	200	0—400	0x935	Saturation basic value (Soft)
	Picmodepersonalbri	-26	-101—49	0x937	Brightness basic value (Personal)
	Picmodepersonalcon	187	150—225	0x939	Contrast basic value (Personal)
	Picmodepersonalsat	200	0—400	0x93B	Saturation basic value (Personal)
	Picmodenormalbri	-26	-101—49	0x925	Brightness basic value (Normal)
	Picmodenormalcon	195	150—225	0x927	Contrast basic value (Normal)
	Picmodenormalsat	200	0—400	0x929	Saturation basic value (Normal)
Pwererror					VALUE ONLY SHOW
	TV	0	1 or 0	0x9Cb	TV or NOT: 1,Yes; 0,No
	Graphics OPTION	0	1 or 0	0x9CB	PAL System Select: 0: I 1: DK
	NETWORK	0	1 or 0		NETWORK or NOT: 1,Yes; 0,No
	Coloursystem Opt	0	1 or 0		Coloursystem
	DCR OPTION	0	1 or 0		DISABLE DELEAR MODE GRAY OR BRIGHT 1,Yes; 0,No
	Network Standby	1	1 or 0		
	On-Timer function	1	1 or 0		
AC TIME COUNT					VALUE ONLY SHOW
PANEL TIME COUNT					VALUE ONLY SHOW
	ADC Calibration				Auto ADC Calibration
	Ver_fac			0x9C4-0x9C7	Factory Information Recorded Data
	White	RED GREEN BLUE	0—156		WHITE BALANCE ADJUST INTERFACE
2.TVPAL	Brightnessoffset	5	-102—108	0x9D9	Brightness Offset (TV PAL)
	Contrastoffset	0	-97—127	0x9DA	Contrast Offset (TV PAL)
	Saturationoffset	0	-127—127	0x9DB	Saturation Offset (TV PAL)
	Hueoffset	0	-127—127	0x9DC	Hue Offset (TV PAL)
	Sharpnessoffset	0	-12—12	0x9DD	Sharpness Offset (TV PAL)
	Redoffset	7	-127—99	0x9DE	WR Offset (TV PAL)
	Greenoffset	-2	-127—99	0x9DF	WG Offset (TV PAL)
	Blueoffset	5	-127—99	0x9E0	WB Offset (TV PAL)
	Brightnessoffset	5	-102—108	0x9E2	Brightness Offset (TV PAL)
3.TVNTSC	Contrastoffset	-30	-97—127	0x9E3	Contrast Offset (TV PAL)
	Saturationoffset	0	-127—127	0x9E4	Saturation Offset (TV PAL)
	Hueoffset	0	-127—127	0x9E5	Hue Offset (TV PAL)
	Sharpnessoffset	0	-127—127	0x9E6	Sharpness Offset (TV PAL)
	Redoffset	6	-127—127	0x9E7	WR Offset (TV PAL)
	Greenoffset	-4	-127—127	0x9E8	WG Offset (TV PAL)
	Blueoffset	6	-127—127	0x9E9	WB Offset (TV PAL)
	Brightnessoffset	0	-127—127	0x9EB	Brightness Offset (TV PAL)
	Contrastoffset	-25	-127—127	0x9EC	Contrast Offset (TV PAL)
4.TVSECAM	Saturationoffset	0	-127—127	0x9ED	Saturation Offset (TV PAL)
	Hueoffset	0	-127—127	0x9EE	Hue Offset (TV PAL)
	Sharpnessoffset	0	-127—127	0x9EF	Sharpness Offset (TV PAL)
	Redoffset	7	-127—127	0x9F0	WR Offset (TV PAL)
	Greenoffset	-2	-127—127	0x9F1	WG Offset (TV PAL)
	Blueoffset	5	-127—127	0x9F2	WB Offset (TV PAL)
	Same as Gerenal data(ALL)-->				
	Normalred	200	128-228		
	Normalgreen	200	128-228		
	Normalblue	200	128-228		

Service Adjustment Data Table

Group/ Item	Item Name	Initial Data	Range	EEPROM Address	Description
	Warmred	210	128-228		
	Warmgreen	200	128-228		
	Warmblue	190	128-228		
	Coolred	194	128-228		
	Coolgreen	200	128-228		
	Coolblue	208	128-228		
	Red	85	0-156		
	Green	85	0-156		
	Blue	85	0-156		
	Brightness	25	-7—58		
	Contrast	35	-22—159		
	Saturation	20	0—112		
	Hue	-20	-80—80		
	Sharpness	7	0—14		
	Picmodedynamicbri	-26	-76—49		
	Picmodedynamiccon	218	180—225		
	Picmodedynamicsat	240	0—392		
	Picmodesoftbri	-26	-101—49		
	Picmodesoftcon	165	180—225		
	Picmodesoftsat	200	0—392		
	Picmodepersonalbri	-26	-101—49		
	Picmodepersonalcon	187	180—225		
	Picmodepersonalsat	200	0—392		
	Picmodenormalbri	-26	-101—49		
	Picmodenormalcon	195	180—225		
	Picmodenormalsat	200	0—300		
Pwererror					
VALUE ONLY SHOW					
	TV	0	1 or 0	0x9Cb	TV or NOT: 1,Yes; 0,No
	Graphics OPTION	0	1 or 0	0x9CB	PAL System Select: 0: I 1: DK
	NETWORK	0	1 or 0		NETWORK or NOT: 1,Yes; 0,No
	Coloursystem Opt	0	1 or 0		Coloursystem
	DCR OPTION	0	1 or 0		DISABLE DELEAR MODE GRAY OR BRIGHT 1,Yes; 0,No
	Network Standby	1	1 or 0		
	On-Timer function	1	1 or 0		
AC TIME COUNT					
VALUE ONLY SHOW					
PANEL TIME COUNT					
VALUE ONLY SHOW					
	ADC Calibration				Auto ADC Calibration
	Ver_fac			0x9C4-0x9C7	Factory Information Recorded Data
	White	RED GREEN BLUE	0—156		WHITE BALANCE ADJUST INTERFACE
6.CVBS3NTSC	Brightnessoffset	5	-102—108	9FD	Brightness Offset (AV NTSC)
	Contrastoffset	-30	-97—127	9FE	Contrast Offset (AV NTSC)
	Saturationoffset	8	-127—127	9FF	Saturation Offset (AV NTSC)
	Hueoffset	0	-127—127	A00	Hue Offset (AV NTSC)
	Sharpnessoffset	0	-12—12	A01	Sharpness Offset (AV NTSC)
	Redoffset	0	-127—99	A02	WR Offset (AV NTSC)
	Greenoffset	0	-127—99	A03	WG Offset (AV NTSC)
7.CVBS3SECAM	Blueoffset	0	-127—99	A04	WB Offset (AV NTSC)
	Brightnessoffset	0	-102—108	A06	Brightness Offset (AV SECAM)
	Contrastoffset	0	-97—127	A07	Contrast Offset (AV SECAM)
	Saturationoffset	0	-127—127	A08	Saturation Offset (AV SECAM)
	Hueoffset	0	-82—127	A09	Hue Offset (AV SECAM)
	Sharpnessoffset	0	-12—12	A0A	Sharpness Offset (AV SECAM)
	Redoffset	0	-127—99	A0B	WR Offset (AV SECAM)
8.CVBS2PAL/ALLPORT	Greenoffset	0	-127—99	A0C	WG Offset (AV SECAM)
	Blueoffset	0	-127—99	A0D	WB Offset (AV SECAM)
	Normalred	200	128-228		Same as Gerenal data(ALL)-->
	Normalgreen	200	128-228		
	Normalblue	200	128-228		
	Warmred	210	128-228		
	Warmgreen	200	128-228		
	Warmblue	190	128-228		
	Coolred	194	128-228		
	Coolgreen	200	128-228		
	Coolblue	208	128-228		
	Red	85	0-156		
	Green	85	0-156		
	Blue	85	0-156		
	Brightness	25	-7—58		
	Contrast	35	-22—159		

Service Adjustment Data Table

Group/ Item	Item Name	Initial Data	Range	EEPROM Address	Description
	Saturation	20	0—112		
	Hue	-20	-80—80		
	Sharpness	7	0—14		
	Picmodedynamicbri	-26	-76—49		
	Picmodedynamiccon	218	180—225		
	Picmodedynamicsat	240	0—392		
	Picmodesoftbri	-26	-101—49		
	Picmodesoftcon	165	180—225		
	Picmodesoftsat	200	0—392		
	Picmodepersonalbri	-26	-101—49		
	Picmodepersonalcon	187	180—225		
	Picmodepersonalsat	200	0—392		
	Picmodenormalbri	-26	-101—49		
	Picmodenormalcon	195	180—225		
	Picmodenormalsat	200	0—300		
Pwererror					VALUE ONLY SHOW
	TV	0	1 or 0	0x9Cb	TV or NOT: 1, Yes; 0, No
	Graphics OPTION	0	1 or 0	0x9CB	PAL System Select: 0: I 1: DK
	NETWORK	0	1 or 0		NETWORK or NOT: 1, Yes; 0, No
	Colorsystem Opt	0	1 or 0		Colorsystem
	DCR OPTION	0	1 or 0		DISABLE DELEAR MODE GRAY OR BRIGHT 1, Yes; 0, No
	Network Standby	1	1 or 0		
	On-Timer function	1	1 or 0		
AC TIME COUNT					VALUE ONLY SHOW
PANEL TIME COUNT					VALUE ONLY SHOW
	ADC Calibration				Auto ADC Calibration
	Ver_fac			0x9C4-0x9C7	Factory Information Recorded Data
	White	RED GREEN BLUE	0—156		WHITE BALANCE ADJUST INTERFACE
9.CVBS2NTSC	Brightnessoffset	-10	-102—108		Same as Gerenal data(CVBS1)-->
	Contrastoffset	0	-97—127		
	Saturationoffset	8	-127—127		
	Hueoffset	0	-127—127		
	Sharpnessoffset	0	-12—12		
	Redoffset	0	-127—99		
	Greenoffset	0	-127—99		
10.CVBS2SECAM	Blueoffset	0	-127—99		
	Brightnessoffset	0	-102—108		
	Contrastoffset	0	-97—127		
	Saturationoffset	0	-127—127		
	Hueoffset	0	-82—127		
	Sharpnessoffset	0	-12—12		
	Redoffset	0	-127—99		
11.SVIDEOPALPORT	Greenoffset	0	-127—99		
	Blueoffset	0	-127—99		Same as Gerenal data(CVBS1) <--
	Brightnessoffset	0	-102—108	A2A	Brightness offset (SVideo PAL)
	Contrastoffset	0	-97—127	A2B	Contrast offset (SVideo PAL)
	Saturationoffset	0	-127—127	A2C	Saturation offset (SVideo PAL)
	Hueoffset	0	-127—127	A2D	Hue offset(SVideo PAL)
	Sharpnessoffset	0	-12—12	A2E	Sharpness offset (SVideo PAL)
12.SVIDEO NTSC	Redoffset	0	-127—99	A2F	WR offset (SVideo PAL)
	Greenoffset	0	-127—99	A30	WG offset (SVideo PAL)
	Blueoffset	0	-127—99	A31	WB offset (SVideo PAL)
	Brightnessoffset	-10	-102—108	A33	Brightness offset (SVideo NTSC)
	Contrastoffset	0	-97—127	A34	Contrast offset (SVideo NTSC)
	Saturationoffset	0	-127—127	A35	Saturation offset (SVideo NTSC)
	Hueoffset	0	-82—127	A36	Hue offset(SVideo NTSC)
13.SVIDEOSECAM	Sharpnessoffset	0	-12—12	A37	Sharpness offset (SVideo NTSC)
	Redoffset	0	-127—99	A38	WR offset (SVideo NTSC)
	Greenoffset	0	-127—99	A39	WG offset (SVideo NTSC)
	Blueoffset	0	-127—99	A3A	WB offset (SVideo NTSC)
	Brightnessoffset	0	-102—108	A3C	Brightness offset (SVideo SECAM)
	Contrastoffset	0	-97—127	A3D	Contrast offset (SVideo SECAM)
	Saturationoffset	0	-127—127	A3E	Saturation offset (SVideo SECAM)
14.COMP480i PORT	Hueoffset	0	-82—127	A3F	Hue offset(SVideo SECAM)
	Sharpnessoffset	0	-12—12	A40	Sharpness offset (SVideo SECAM)
	Redoffset	0	-127—99	A41	WR offset (SVideo SECAM)
	Greenoffset	0	-127—99	A42	WG offset (SVideo SECAM)
	Blueoffset	0	-127—99	A43	WB offset (SVideo SECAM)
	Brightnessoffset	0	-102—108	A45	Brightness offset (Component480i)

Service Adjustment Data Table

Group/ Item	Item Name	Initial Data	Range	EEPROM Address	Description
	Contrastoffset	0	-97—127	A46	Contrast offset (Component480i)
	Saturationoffset	30	-127—127	A47	Saturation offset (Component480i)
	Hueoffset	0	-127—127	A48	Hue offset(Component480i)
	Sharpnessoffset	3	-12—12	A49	Sharpness offset (Component480i)
	Redoffset	0	-127—99	A4A	WR offset (Component480i)
	Greenoffset	0	-102—108	A4B	WG offset (Component480i)
	Blueoffset	0	-97—127	A4C	WB offset (Component480i)
15.COMP576I PORT	Brightnessoffset	0	-102—108	A4E	Brightness offset (Component575i)
	Contrastoffset	0	-97—127	A4F	Contrast offset (Component575i)
	Saturationoffset	30	-127—127	A50	Saturation offset (Component575i)
	Hueoffset	0	-127—127	A51	Hue offset(Component575i)
	Sharpnessoffset	3	-12—12	A52	Sharpness offset (Component575i)
	Redoffset	0	-127—99	A53	WR offset (Component575i)
	Greenoffset	0	-102—108	A54	WG offset (Component575i)
	Blueoffset	0	-97—127	A55	WB offset (Component575i)
16.COMP480P PORT	Brightnessoffset	0	-102—108	A57	Brightness offset (Component480p)
	Contrastoffset	0	-97—127	A58	Contrast offset (Component480p)
	Saturationoffset	30	-127—127	A59	Saturation offset (Component480p)
	Hueoffset	0	-127—127	A5A	Hue offset(Component480p)
	Sharpnessoffset	3	-12—12	A5B	Sharpness offset (Component480p)
	Redoffset	0	-127—99	A5C	WR offset (Component480p)
	Greenoffset	0	-102—108	A5D	WG offset (Component480p)
	Blueoffset	0	-97—127	A5E	WB offset (Component480p)
17.COMP576P PORT	Brightnessoffset	0	-102—108	A60	Brightness offset (Component575p)
	Contrastoffset	0	-97—127	A61	Contrast offset (Component575p)
	Saturationoffset	30	-127—127	A62	Saturation offset (Component575p)
	Hueoffset	0	-127—127	A63	Hue offset (Component575p)
	Sharpnessoffset	3	-12—12	A64	Sharpness offset (Component575p)
	Redoffset	0	-127—99	A65	WR offset (Component575p)
	Greenoffset	0	-102—108	A66	WG offset (Component575p)
	Blueoffset	0	-97—127	A67	WB offset (Component575p)
18.COMP720P 50 PORT	Brightnessoffset	5	-102—108	A69	Brightness offset (Component 720p/50Hz)
	Contrastoffset	-5	-97—127	A6A	Contrast offset (Component 720p/50Hz)
	Saturationoffset	30	-127—127	A6B	Saturation offset (Component 720p/50Hz)
	Hueoffset	0	-127—127	A6C	Hue offset (Component 720p/50Hz)
	Sharpnessoffset	3	-12—12	A6D	Sharpness offset (Component 720p/50Hz)
	Redoffset	0	-127—99	A6E	WR offset (Component 720p/50Hz)
	Greenoffset	0	-127—99	A6F	WG offset (Component 720p/50Hz)
	Blueoffset	0	-127—99	A70	WB offset (Component 720p/50Hz)
19.COMP720P 60 PORT	Brightnessoffset	5	-102—108	A72	Brightness offset (Component 720p/60Hz)
	Contrastoffset	-5	-97—127	A73	Contrast offset (Component 720p/60Hz)
	Saturationoffset	30	-127—127	A74	Saturation offset (Component 720p/60Hz)
	Hueoffset	0	-127—127	A75	Hue offset (Component 720p/60Hz)
	Sharpnessoffset	3	-12—12	A76	Sharpness offset (Component 720p/60Hz)
	Redoffset	0	-127—99	A77	WR offset (Component 720p/60Hz)
	Greenoffset	0	-127—99	A78	WG offset (Component 720p/60Hz)
	Blueoffset	0	-127—99	A79	WB offset (Component 720p/60Hz)
20.COMP1080I 50 PORT	Brightnessoffset	5	-102—108	A7B	Brightness offset (Component 1080i/50Hz)
	Contrastoffset	-5	-97—127	A7C	Contrast offset (Component 1080i/50Hz)
	Saturationoffset	30	-127—127	A7D	Saturation offset (Component 1080i/50Hz)
	Hueoffset	0	-127—127	A7E	Hue offset (Component 1080i/50Hz)
	Sharpnessoffset	3	-12—12	A7F	Sharpness offset (Component 1080i/50Hz)
	Redoffset	0	-127—99	A80	WR offset (Component 1080i/50Hz)
	Greenoffset	0	-127—99	A81	WG offset (Component 1080i/50Hz)
	Blueoffset	0	-127—99	A82	WB offset (Component 1080i/50Hz)
21.COMP1080I 60 PORT	Brightnessoffset	5	-102—108	A84	Brightness offset (Component 1080i/60Hz)
	Contrastoffset	-5	-97—127	A85	Contrast offset (Component 1080i/60Hz)
	Saturationoffset	30	-127—127	A86	Saturation offset (Component 1080i/60Hz)
	Hueoffset	0	-127—127	A87	Hue offset (Component 1080i/60Hz)
	Sharpnessoffset	3	-12—12	A88	Sharpness offset (Component 1080i/60Hz)
	Redoffset	0	-127—99	A89	WR offset (Component 1080i/60Hz)
	Greenoffset	0	-127—99	A8A	WG offset (Component 1080i/60Hz)
	Blueoffset	0	-127—99	A8B	WB offset (Component 1080i/60Hz)
22.COMP1080P 25 PORT	Brightnessoffset	5	-102—108	A8D	Brightness offset (Component 1080p/25Hz)
	Contrastoffset	-5	-97—127	A8E	Contrast offset (Component 1080p/25Hz)
	Saturationoffset	30	-127—127	A8F	Saturation offset (Component 1080p/25Hz)
	Hueoffset	0	-127—127	A90	Hue offset (Component 1080p/25Hz)
	Sharpnessoffset	3	-12—12	A91	Sharpness offset (Component 1080p/25Hz)
	Redoffset	0	-127—99	A92	WR offset (Component 1080p/25Hz)
	Greenoffset	0	-127—99	A93	WG offset (Component 1080p/25Hz)
	Blueoffset	0	-127—99	A94	WB offset (Component 1080p/25Hz)
23.COMP1080P 30 PORT	Brightnessoffset	5	-102—108	A96	Brightness offset (Component 1080p/30Hz)
	Contrastoffset	-5	-97—127	A97	Contrast offset (Component 1080p/30Hz)
	Saturationoffset	30	-127—127	A98	Saturation offset (Component 1080p/30Hz)
	Hueoffset	0	-127—127	A99	Hue offset (Component 1080p/30Hz)
	Sharpnessoffset	3	-12—12	A9A	Sharpness offset (Component 1080p/30Hz)
	Redoffset	0	-127—99	A9B	WR offset (Component 1080p/30Hz)

Service Adjustment Data Table

Group/ Item	Item Name	Initial Data	Range	EEPROM Address	Description
	Greenoffset	0	-127—99	A9C	WG offset (Component 1080p/30Hz)
	Blueoffset	0	-127—99	A9D	WB offset (Component 1080p/30Hz)
24.COMP1080P 50 PORT	Brightnessoffset	5	-102—108	A9F	Brightness offset (Component 1080p/50Hz)
	Contrastoffset	-5	-97—127	AA0	Contrast offset (Component 1080p/50Hz)
	Saturationoffset	30	-127—127	AA1	Saturation offset (Component 1080p/50Hz)
	Hueoffset	0	-127—127	AA2	Hue offset (Component 1080p/50Hz)
	Sharpnessoffset	3	-12—12	AA3	Sharpness offset (Component 1080p/50Hz)
	Redoffset	0	-127—99	AA4	WR offset (Component 1080p/50Hz)
	Greenoffset	0	-127—99	AA5	WG offset (Component 1080p/50Hz)
	Blueoffset	0	-127—99	AA6	WB offset (Component 1080p/50Hz)
25.COMP1080P 60 PORT	Brightnessoffset	5	-102—108	AA8	Brightness offset (Component 1080p/60Hz)
	Contrastoffset	-5	-97—127	AA9	Contrast offset (Component 1080p/60Hz)
	Saturationoffset	30	-127—127	AAA	Saturation offset (Component 1080p/60Hz)
	Hueoffset	0	-127—127	AAB	Hue offset (Component 1080p/60Hz)
	Sharpnessoffset	3	-12—12	AAC	Sharpness offset (Component 1080p/60Hz)
	Redoffset	0	-127—99	AAD	WR offset (Component 1080p/60Hz)
	Greenoffset	0	-127—99	AAE	WG offset (Component 1080p/60Hz)
	Blueoffset	0	-127—99	AAF	WB offset (Component 1080p/60Hz)
26.PC	Brightnessoffset	0	-102—108	AB1	Brightness offset (VGA)
	Contrastoffset	0	-97—127	AB2	Contrast offset (VGA)
	Saturationoffset	0	-127—127	AB3	Saturation offset (VGA)
	Hueoffset	0	-127—127	AB4	Hue offset (VGA)
	Sharpnessoffset	0	-12—12	AB5	Sharpness offset (VGA)
	Redoffset	0	-127—99	AB6	WR offset (VGA)
	Greenoffset	0	-127—99	AB7	WG offset (VGA)
	Blueoffset	0	-127—99	AB8	WB offset (VGA)
27.DVI	Brightnessoffset	0	-127—127	ABA	Brightness offset (HDMI)
	Contrastoffset	-5	-127—127	ABB	Contrast offset (HDMI)
	Saturationoffset	0	-127—127	ABC	Saturation offset (HDMI)
	Hueoffset	0	-127—127	ABD	Hue offset (HDMI)
	Sharpnessoffset	0	-127—127	ABE	Sharpness offset (HDMI)
	Redoffset	0	-127—127	ABF	WR offset (HDMI)
	Greenoffset	0	-127—127	AC0	WG offset(HDMI)
	Blueoffset	0	-127—127	AC1	WB offset (HDMI)

PC Signal Support Timing List

□ PC Signal Support Timing List

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Remark
720 x 400	31.47	70.09	DOS (VGA)
640 x 480	31.43	59.88	VGA VESA 60Hz
640 x 480	37.50	75.00	VGA VESA 75Hz
640 x 480	37.86	72.81	VGA VESA 72Hz
640 x 480	43.27	85.00	VGA VESA 85Hz
640 x 480	35.00	66.67	Mac. 13
640 x 480	34.97	66.60	Mac LC 13"
800 x 600	35.16	56.25	SVGA VESA 56Hz
800 x 600	37.88	60.32	SVGA VESA 60Hz
800 x 600	46.875	75.00	SVGA VESA 75Hz
800 x 600	34.50	55.38	SVGA
800 x 600	38.00	60.51	SVGA
800 x 600	53.67	85.06	SVGA VESA 85Hz
832 x 624	49.72	74.55	Mac. 16
1024 x 768	48.36	60.00	XGA VESA 60Hz
1024 x 768	56.47	70.07	XGA VESA 70Hz
1024 x 768	60.02	75.03	XGA VESA 75Hz
1024 x 768	48.50	60.02	XGA
1024 x 768	60.31	74.92	XGA
1024 x 768	61.00	75.70	XGA
1024 x 768	68.68	85.00	XGA VESA 85Hz
1024 x 768	60.24	75.08	MAC_Normal 19"
1280 x 720	37.5	50.00	720p - 50Hz
1280 x 960	60.00	60.00	SXGA VESA 60Hz
1280 x 1024	79.976	75.025	SXGA VESA 75Hz
1280 x 1024	63.370	60.01	SXGA
1280 x 1024	63.34	59.98	SXGA
1280 x 1024	63.74	60.01	SXGA
1280 x 1024	63.79	60.18	SXGA
1280 x 1024	63.90	60.00	SXGA
1280 x 1024	81.13	76.107	SXGA
1152 x 900	61.20	65.20	SXGA
1152 x 900	61.85	66.00	SXGA
1152 x 900	71.40	75.60	SXGA
1400 x 1050	65.35	60.12	SXGA +
1400 x 1050	65.12	59.90	SXGA +
1152 x 870	68.68	75.06	MAC_Normal 21"
1280 x 1024	80.00	75.00	Mac II
1600 x 1200	75.00	60.00	UXGA VESA 60Hz
1366 x 768	48.36	60.01	WXGA
1360 x 768	47.73	60.03	WXGA
1920 x 1080	28.125	50.00	1080i - 50Hz
1920 x 1080	33.75	60.00	1080i - 60Hz

The monitor can be automatically adjusted in pc mode when receiving a standard VESA signal. It will be displayed as XGA when the monitor is receiving a XGA or WXGA signal.

Component / DVI Signal Support Timing List

☐ Component signal support timing

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Remark
720 x 480	15.735	60i	SDTV 480i
720 x 576	15.625	50i	SDTV 576i
720 x 480	31.25	60p	SDTV 480p
720 x 576	31.25	50p	SDTV 576p
1280 x 720	45.00	60p	HDTV 720p
1280 x 720	37.50	50p	HDTV 720p
1920 x 1080	33.75	60i	HDTV 1080i
1920 x 1080	28.13	50i	HDTV 1080i

☐ DVI-D signal support timing

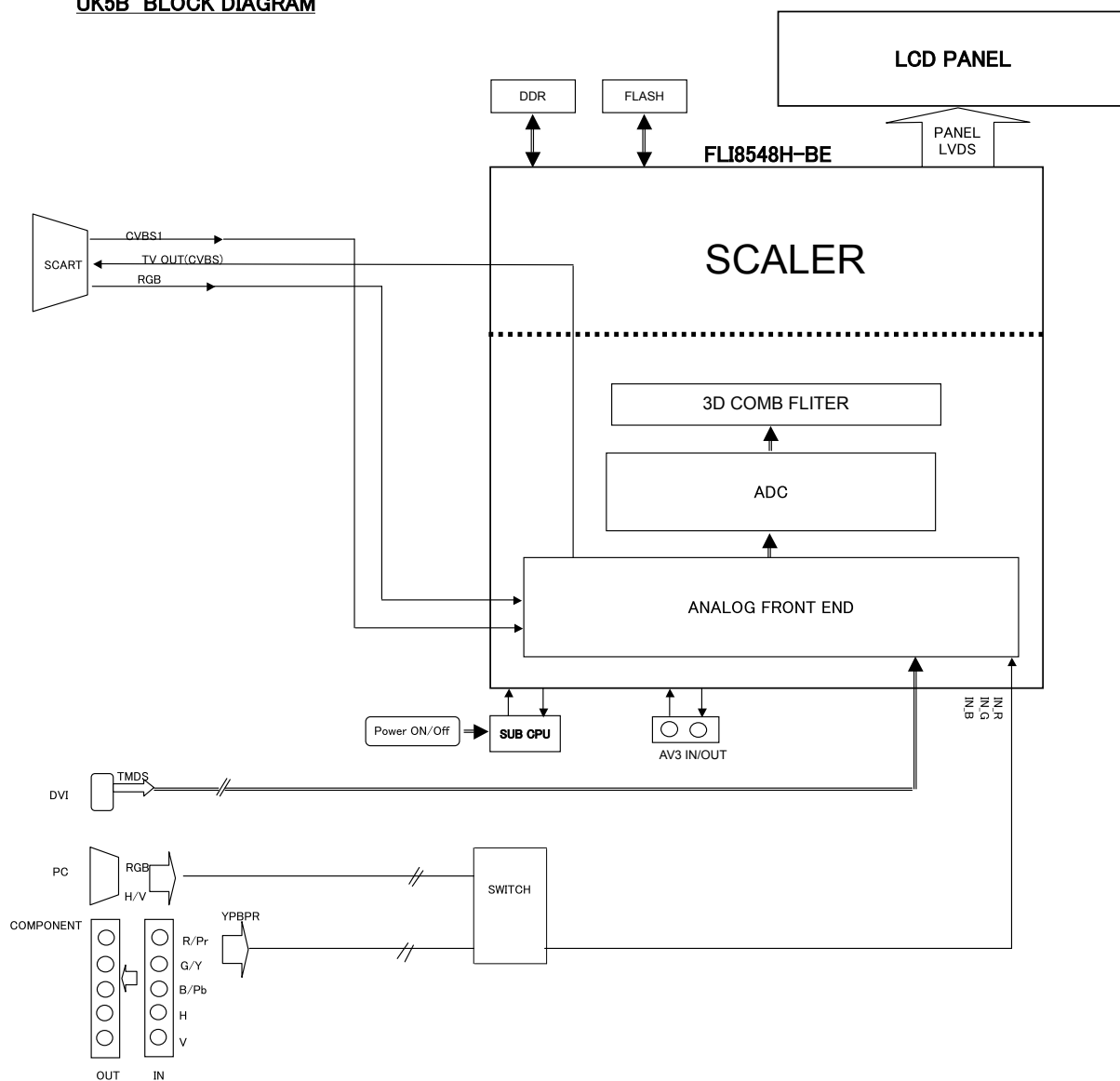
Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Remark
640 x 480	31.43	59.88	VGA VESA 60Hz
640 x 480	37.86	72.81	VGA VESA 72Hz
640 x 480	37.5	75	VGA VESA 75Hz
640 x 480	34.97	66.6	MAC LC 13"
640 x 480	35	66.67	MAC_NORMAL 13"
800 x 600	35.16	56.25	SVGA VESA 56Hz
800 x 600	37.88	60.32	SVGA VESA 60Hz
800 x 600	46.875	75	SVGA VESA 75Hz
832 x 624	49.72	74.55	MAC_NORMAL 16"
1024 x 768	48.36	60	XGA VESA 60Hz
1024 x 768	60.23	75.03	XGA VESA 75Hz
1024 x 768	56.47	70.07	XGA VESA 70Hz
1024 x 768	60.24	75.08	MAC_NORMAL 19"
1152 x 870	68.68	75.06	MAC_NORMAL 21"
1280 x 1024	63.98	60.02	SXGA VESA 60Hz
720 x 480	31.7	59.94	480p
720 x 480	15.73	59.94	480i
768 x 575	31.25	50	575p
768 x 575	15.63	50	575i
1280 x 720	37.5	50	720p - 50Hz
1280 x 720	45	60	720p - 60Hz
1366 x 768	48.36	60	WXGA
1360 x 768	47.7	60	WXGA
1920 x 1080	28.125	50	1080i - 50Hz
1920 x 1080	33.75	60	1080i - 60Hz
1920 x 1080	56.25	50	HDTV 1080p - 50Hz
1920 x 1080	67.5	60	HDTV 1080p - 60Hz
1920 x 1080	27.00	24	HDTV 1080p - 24Hz
1920 x 1080	28.13	25	HDTV 1080p - 25Hz
1920 x 1080	33.75	30	HDTV 1080p - 30Hz

Depending on the condition of signals and the type and length of cables, these signals may not be properly viewed.
To save the XGA Mode **1366 x 768** setting switch the monitor off then on using the standby button.

Chassis Block Diagrams

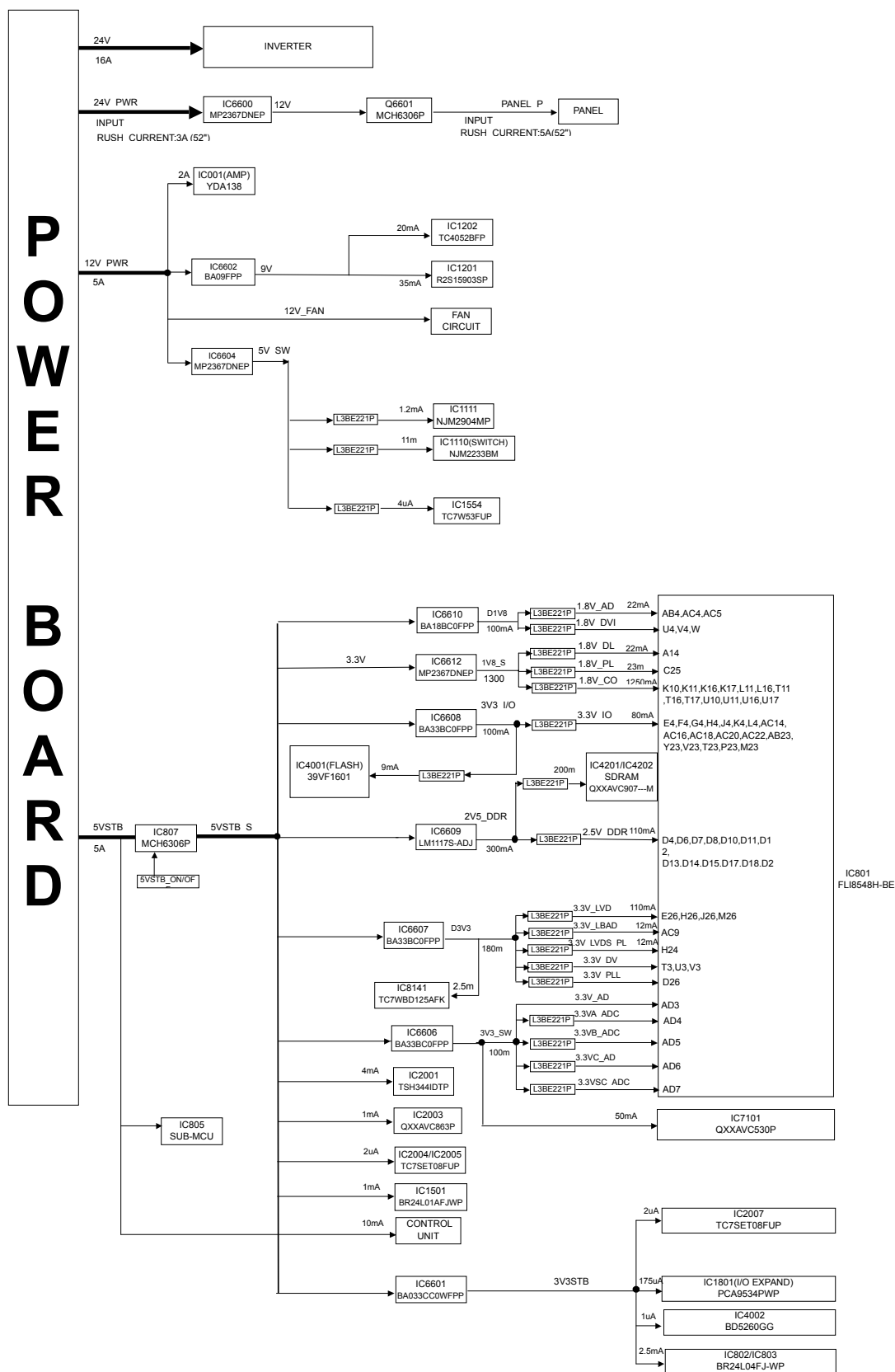
This is a diagram for all models and therefore differs slightly from the actual block diagram.

UK5B BLOCK DIAGRAM

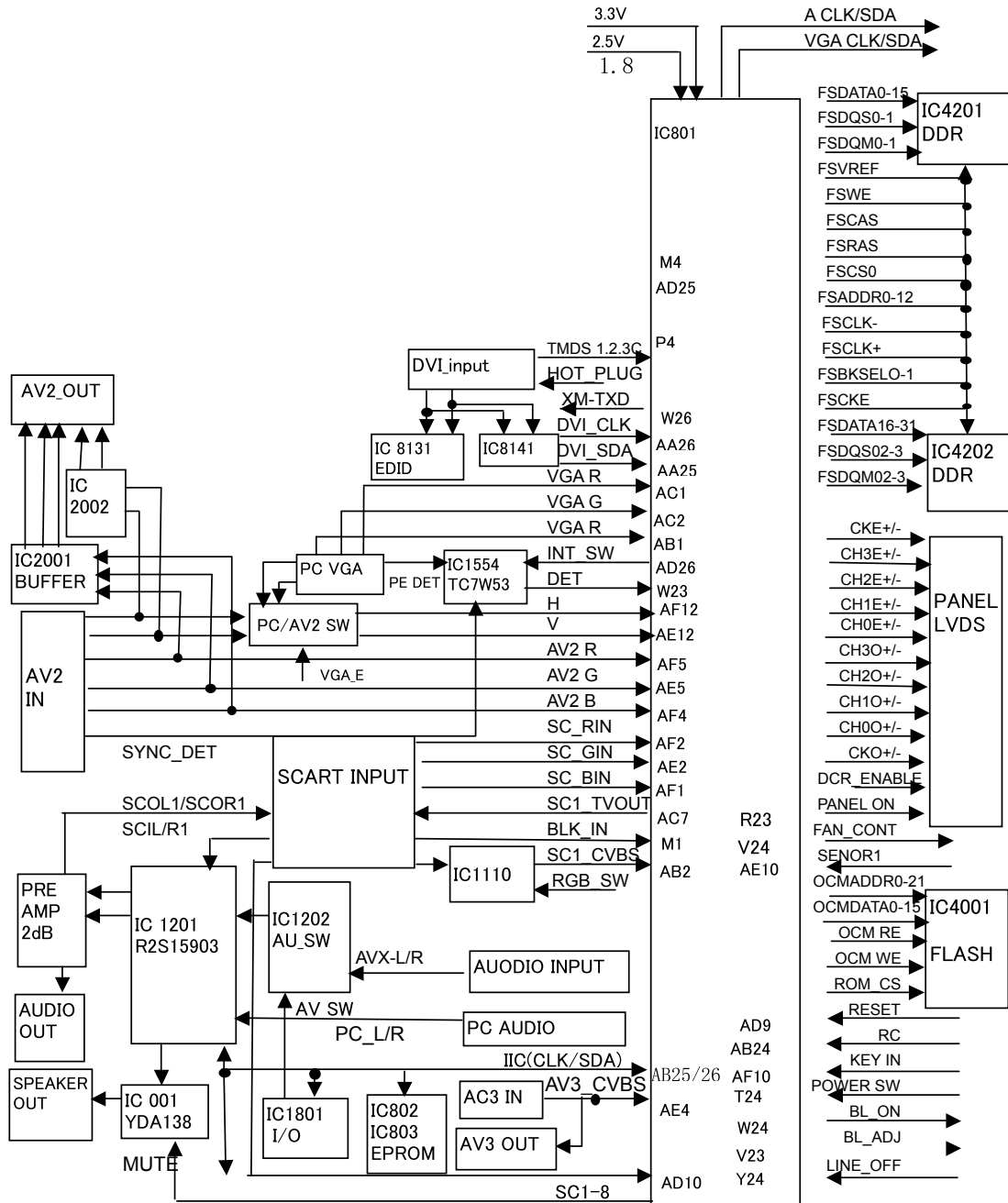


Chassis Block Diagrams

UK5B POWER SUPPLY BLOCK DIAGRAM

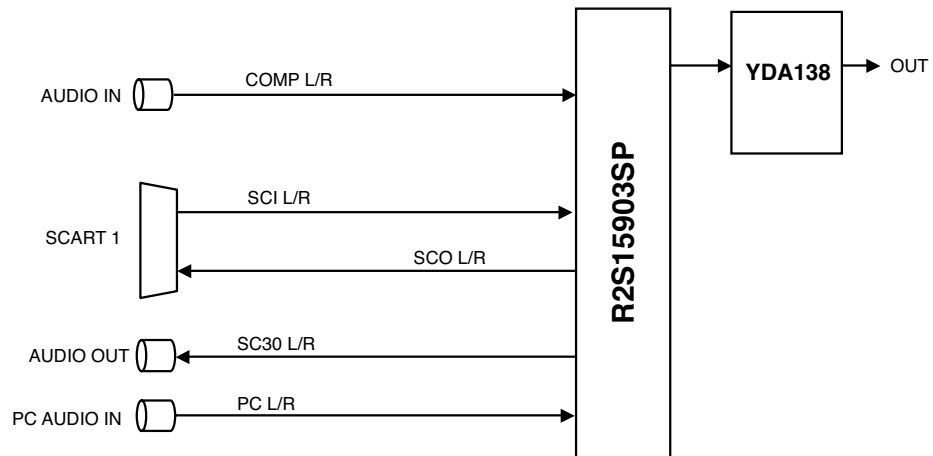


IC Block Diagrams

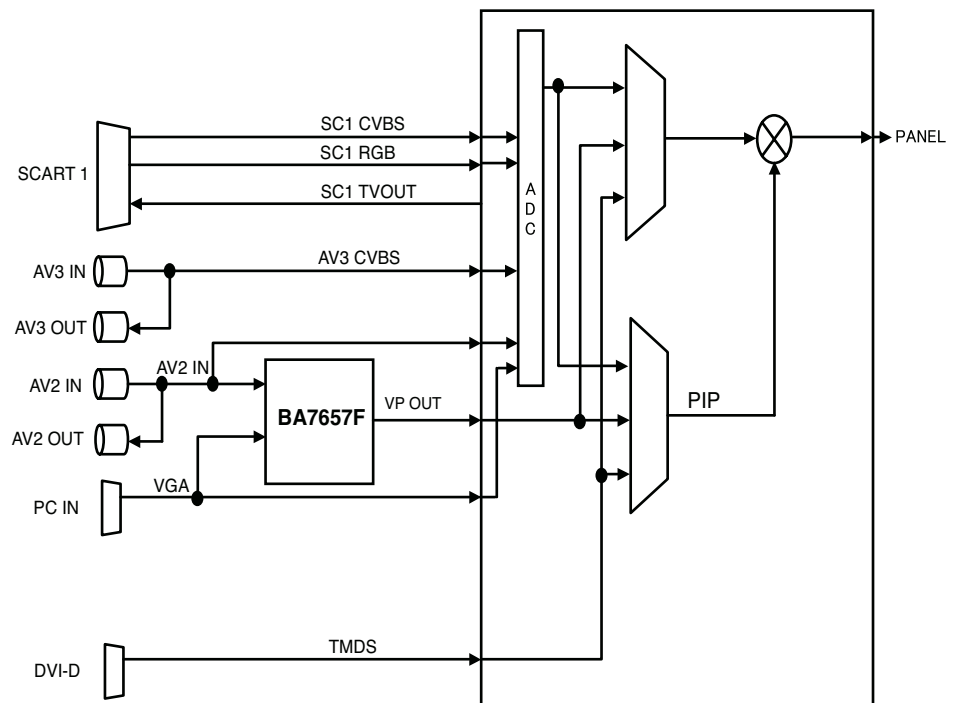


IC Block Diagrams

UK5B BLOCK DIAGRAM (Audio)



UK5B BLOCK DIAGRAM (Video)



RS232C Settings

The LCD monitor control commands are used to control a LCD monitor through RS232C from a computer.

Serial Interface Specification

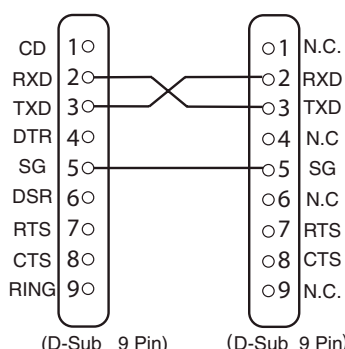
Transfer Specification

1. Transmission Speed : initial setting value is 19200.
2. Transmission speed can be changed by hotel mode.

ITEM	SPECIFICATION
Synchronous system	Asynchronous
Transmission Speed	9600 / 19200
Data Length	8 bit
Parity	None
Stop Bit	1
Flow Control	None

Connection

The designated RS232C serial cable that is provided with the LCD monitor must be used for a connection between a computer and a LCD monitor.



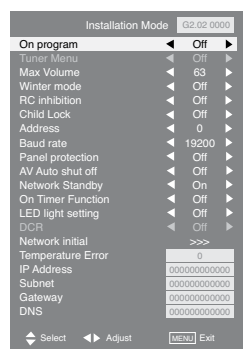
The TV command is defined by one command / one line that starts with "C" and ends with carriage return (0x0D)

There are two types of commands:

1. Functional Execution Commands e.g. Co5[CR] (see table on following page)
2. Status Read Commands e.g. "CR0 [CR] (see table on following page)

Setting the monitor address in RS232 mode

To access installation mode press the green button on the remote control and hold for 3 seconds. The following screen will appear.



Each monitor can have a specific address e.g. 007 which helps command that monitor individually and will not affect other monitors connected to a controlling pc.

Address format command

The addressing format command is used for operating multiple monitor sets from a single pc via the RS232 command line. If you set your monitor address to '000' it will never respond to any addressing command from the pc. If the address from the pc is 'FFF', all monitor sets will execute the command.

The address format command is defined by one command, one line which starts with 'A' and ends with carriage return (0x0D). An address is added at the top of a control command.

Example:

Functional execution command: "A001C05" [CR] means the address is 001 and the control command is C05.

Status read command: "A001CR0" [CR] means the address is 001 and the command is CR0.

The monitor can set its own address in the hotel option (see above). The address range is 000 - 999, the default address will be 000.

The baud rate indicates the unit transfer speed of data from the pc the the monitor sets.

RS232C Command Tables

□ Functional Execution Command Table

Command	Item
C00	POWER ON
C01	POWER OFF
C03	POWER ON/ OFF (toggle)
C10	Wide toggle
C22	Input
C24	Wide "Natural" direct
C25	Wide "Zoom 16:9" direct
C26	Wide "Title in 16:9" direct
C27	Wide "Zoom 14:9" direct
C28	Wide "Title in 14:9" direct
C29	Wide "Full" direct
C30	Picture
C0F	Wide "Normal" direct
C70	AV1 direct
C71	RGB direct
C72	AV2 RGBHV direct
C73	AV2 YPbPr direct
C74	AV3 direct
C75	DVI direct
C76	PC direct
C64	PC Auto adjust
C92	Factory settings
CF PSAVE ON	Power save ON
CF PSAVE OFF	Power save OFF
CF CLOK ON	Child lock ON
CF CLOK OFF	Child lock OFF
CF DEA RMCY	RC inhibition OFF
CF DEA RMCN	RC inhibition ON

RS232C Command Tables

□ Image control Read Command Table

Status read command	Item
CR BRIGHT	Status of Brightness.
CR CONT	Status of Contrast.
CR COLOR	Status of Color.
CR TINT	Status of Tint.
CR SHARP	Sharpness.
CR WBAL	Status of White Balance Mode information.
CR WBAL-R	Status of White Balance Red.
CR WBAL-G	Status of White Balance Green.
CR WBAL-B	Status of White Balance Blue.
CR NZRED	Status of Noise reduction setting.
CR FILM	Status of Film mode setting.
CR IMAGE	Status of Image selection. (The same as PICTURE mode)
CR DCDI	Status of DCDi setting.
CR ACCACM	Status of ACC/ACM setting.
CR CCS	Status of CCS setting.
CR MPEGNR	Status of MPEG NR setting.

□ PC Read Command Table

Status read command	Item
CR H-POS	Status of Horizontal position.
CR V-POS	Status of Vertical position.
CR PHASE	Status of PHASE value.
CR CLOCK	Status of CLOCK value.

RS232C Command Tables

❑ Input Read Command Table

Status read command	Item
CR INPUT	Status of Input selection.
CR SOURCE	Status of Input source mode.
CR SYSTEM	Status of system of Input mode.

❑ Screen Read Command Table

Status read command	Item
CR SCREEN	Status of screen size. (The same of WIDE mode)

❑ Time Read Command Table

Status read command	Item
CR PANELH	Status of accumulated lifetime of panel. (The same as CR_LAMPH Command)
CR MONH	Status of accumulated lifetime of monitor. (The same as CR_PROJH Command)

❑ Sound control Read Command Table

Status read command	Item
CR VOLUME	Status of volume value.
CR MUTE	Status of MUTE.

RS232C Command Tables

□ Setting Read Command Table

Status read command	Item
CR LANG	Status of Language selection.
CR P-MANE	Status of Power management setting.
CR TILE	Status of Tile mode ON/OFF setting.
CR TILE-HSETS	Status of Tile mode, the number of Horizontal array.
CR TILE-VSETS	Status of Tile mode, the number of Vertical array.
CR TILE-HLOCAT	Status of Tile mode, the number of Horizontal allocation.
CR TILE-VLOCAT	Status of Tile mode the number of Vertical allocation.
CR TILE-BZLHADJ	Status of Tile mode, the width of bezel (Horizontal).
CR TILE-BZLVADJ	Status of Tile mode, the width of bezel (Vertical).
CR ONPROG	Status of On Program information.
CR WINTERMODE	Status of Winter mode Information.
CR PANELPROTECT	Statuses of Panel protect Information.
CR LEDLIGHT	Status of LED light Information.
CR AVAUTOSHUT	Status of AV auto shut OFF Information.
CR CHILDLOCK	Statuses of Child lock Information.
CR RCINHIBITION	Status of RC Inhibit Information.

□ Other Read Command Table

Status read command	Item
CR STATUS	Status of the operation of the monitor.
CR SIGNAL	Status of with or without signal.
CR FREEZE	Status of Freeze setting.
CR FANLOCK	Statuses of fan lock error.
CR TEMP	Status of current temperature value.

RS232C Command Tables

❑ UK5 Read Command Table (Basic Command)

Command	Item	Note
CR0	Power	On, Standby, power error,
CR1	Input Mode	AV1, AV2, . . . , DVI, PC
CR WIDE	Wide mode	Auto, Normal, Full, . . .
CR PICTURE	Picture mode	Dynamic, Standard, . . .
CR SIGNAL	Signal existence	Signal/No signal
CR CHILD	Child lock	On/Off
CR PSAVE	Power save	On/Off
CRTM	Panel usage time	—
CR RMC	RC inhibition	On/Off
CR MDL	Model number	Model number

❑ Error code Table

Error code	Note
?	• Receiving the data that cannot be decoded. • The wrong indication of parameter. (Wrong figured number, or wrong word is included)
000	Normal receiving. (no error)
102	If the command of out of range is directly entered valuable parameter.
103	No matching with Hardware. (Command for optional function which is not equipped)
201	If the command of "Out of range" is entered by inclement or decrements by numeric value.
301	While capturing the picture, no execution. Wait and transmit command again.
402	While PIN code is in operation, no execution. Wait and transmit command again.
101	The errors not including above.

Trouble Shooting

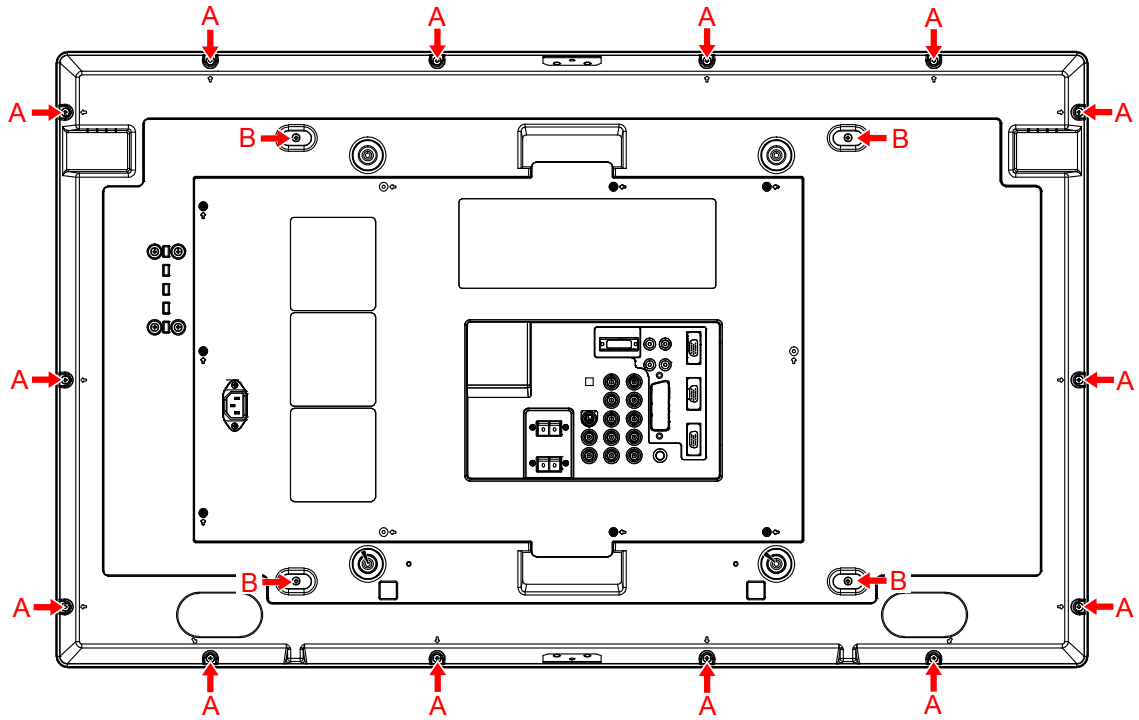
TROUBLE SHOOTING

Item	Condition	Check point
1 No power	NO LED	Check the connection of the AC cord. (AC plug and connector)
2 No backlight	After power on, backlights on briefly then off.	Change the LCD panel
3 Faulty picture	No colour, poor picture Darker / brighter picture etc.	Change the MAIN board >>If not, change the panel.
4 Faulty picture	Visible line on the picture Part of the display is poor	Change the panel
5 No RC	No operation of RC handset	Change the RC or SW board Check the RC inhibit is off.
6 No key SW	No operation of the key Switch	Change the SW board Check child lock is off.

Mechanical Disassembly

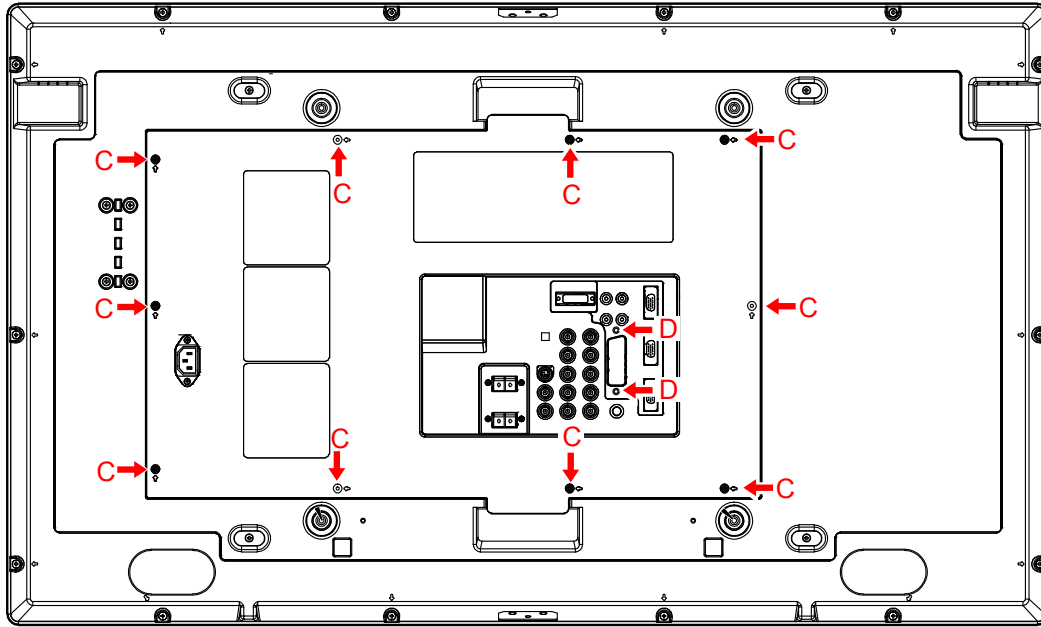
Removal of BACK PLATE

Remove screws (A) x 14 (4 x 14) and screws (B) x 4 (M4 x 18)

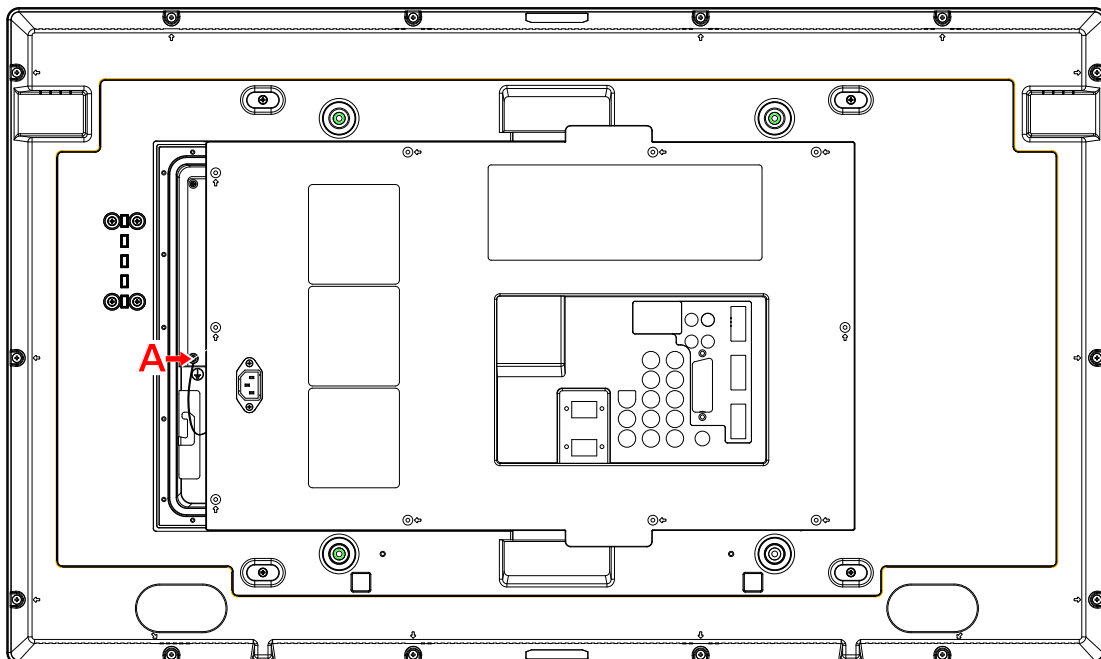


Removal of LID BACK

1, Remove screws (C) x 10 (3 x 20), (D) x 2 (3 x 10).

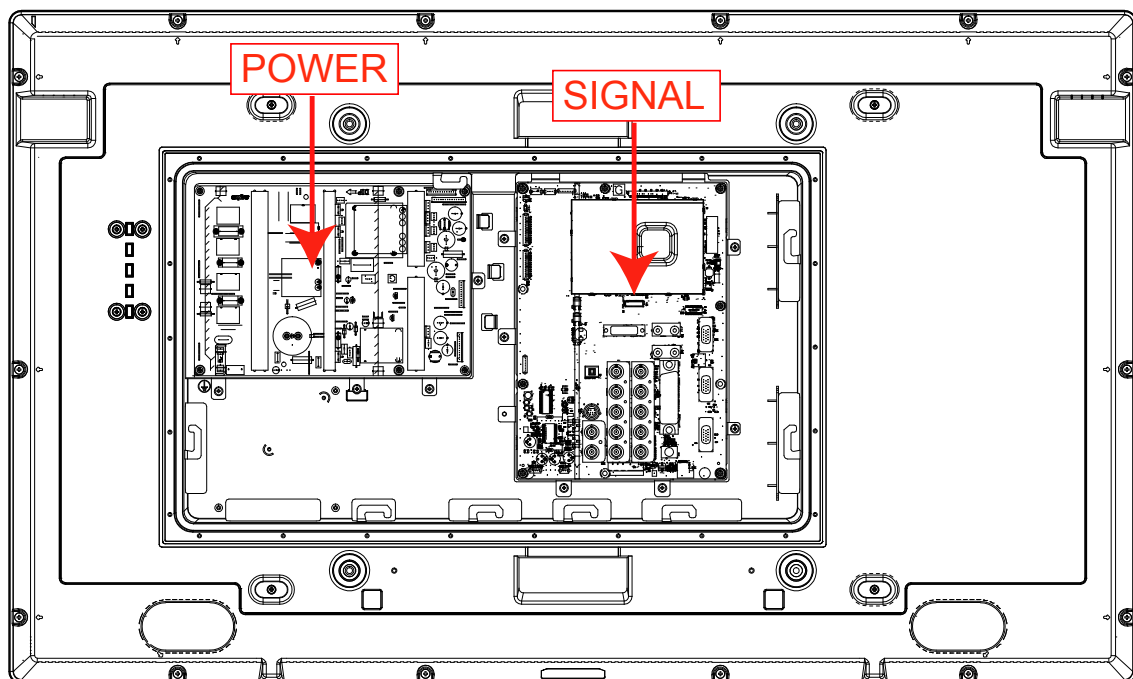


2, Remove screws (A) x 1 (M3 x 8) and then remove LID BACK.

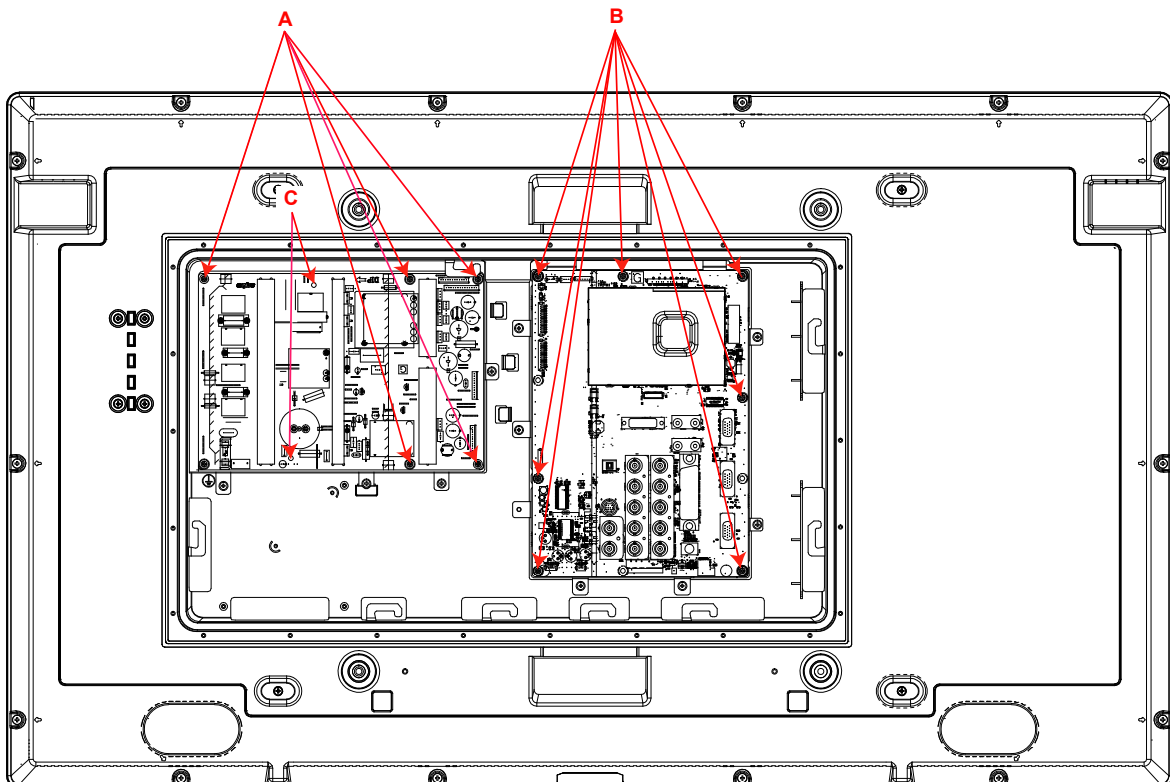


Mechanical Disassembly

Location of Circuit Board and Electric Parts



Chassis removal



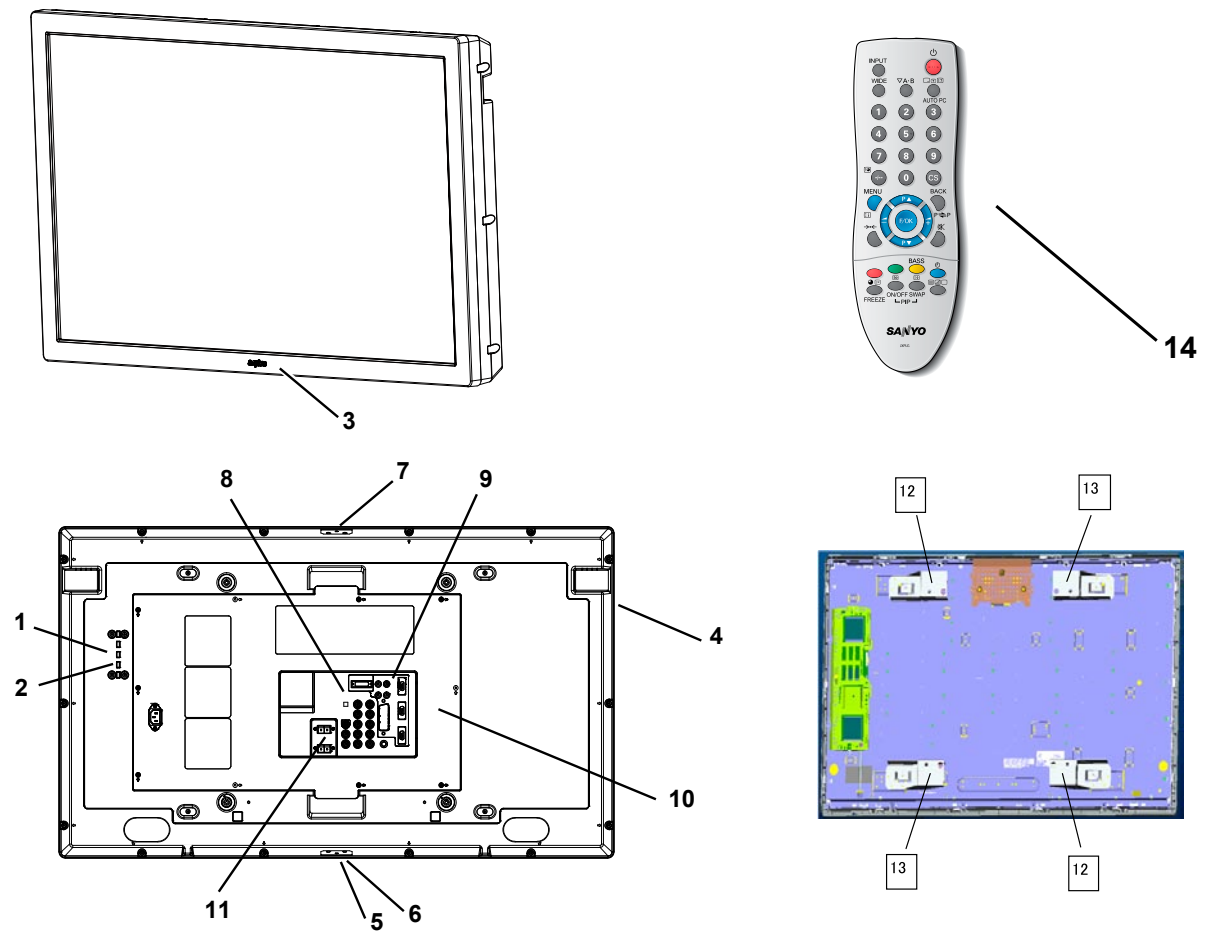
Screw A: M3 x 8

Screw B: M3 x 8

C: 2pcs of PCB SPACER BOSS

Cabinet Parts List

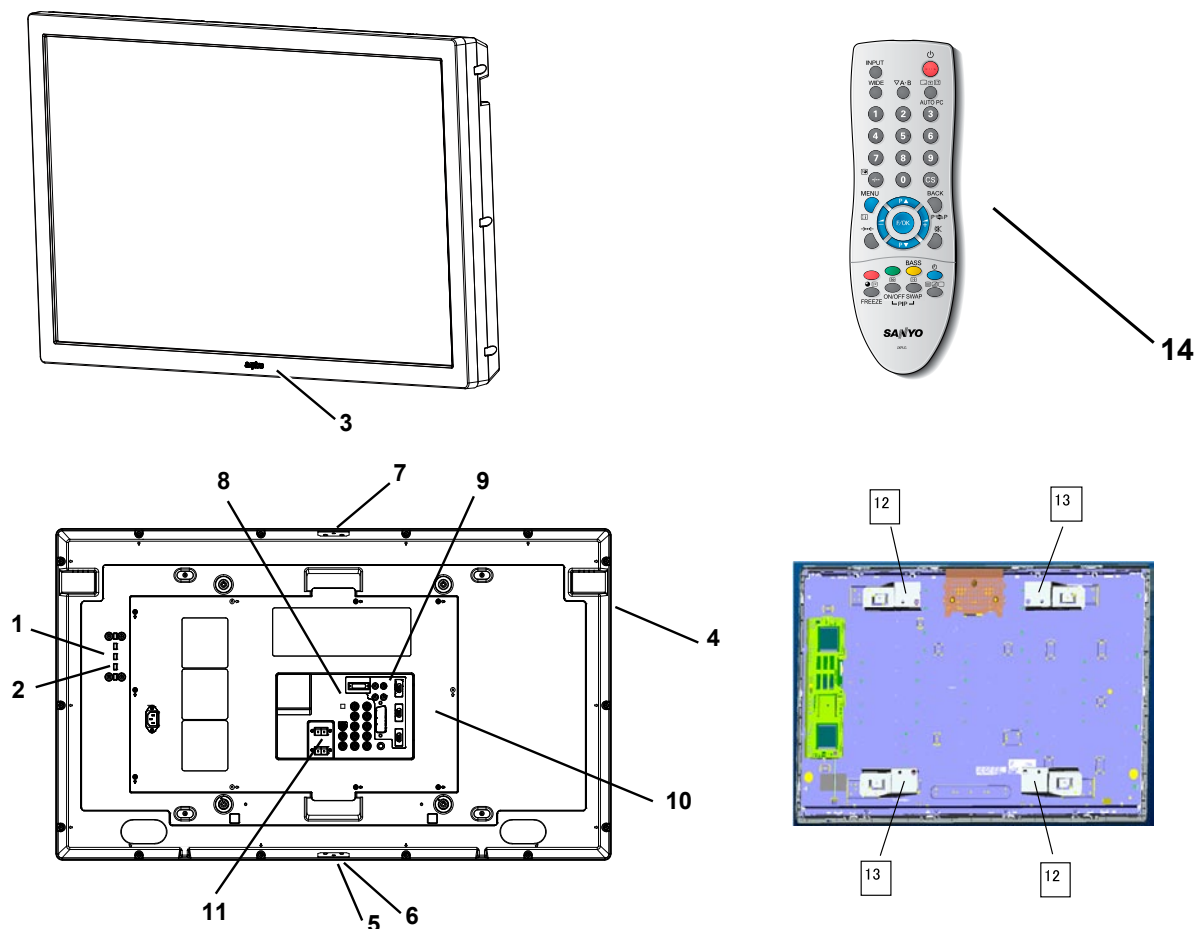
Note: Parts order must contain Service Ref. No., Part No., and descriptions.



PID-42AE1		
CABINET PARTS		
1	6103496481	BUTTON PLATE ASSY-N8FA
2	6103494586	CONTROL BUTTONS-N8FA
3	6103483054	CABINET FRONT-N8FA
4	6103483078	CABINET BACK-N8FA
5	6103483139	DEC IND RC-N8FA
6	6103483160	DEC CONTROL SHEET-N8FA
7	6103487939	DEC CONTROL SHEET A-N8FA
8	6103489759	DEC AV TOP-N8FA
9	6103489742	DEC AV BTM-N8FA
10	6103483269	LID BACK-N8FA
11	6550035745	DEC SP TERMINAL-N8FA
	6550034793	SPACER SHEET-N8FA X2(CABI FRONT, SIDE)
	6550034786	SPACER SHEET A-N8FA X4(CABI FRONT, TOP/BOTTOM)
	9103151350	GASKET C-N2HE X4
	9103276084	GASKET -J3TW X3
	6103483238	HOLDER MAIN PCB-N8FA (METAL PLATE)
	6103483245	HOLDER POWER PCB-N8FA (METAL PLATE)
12	6103483306	MOUNTING VESA-N8FA X2
13	6103483290	VESA BRACKET-N8FA X2
	6550022554	ADHESIVE CLOTH TAPE
	6550024848	FIXER CABLE TIES,L100
	6550035721	SPACER SHEET-N8FA
ACCESSORIES		
14	6520024854	REMOCON,JXPLG
	6103499581	CD-ROM,OWNERS MANUAL-N8FA-A
	6103489049	INSTALLATION GUIDE-N8FA
SCREWS		
	4120792203	SPECIAL SCREW -N7SRL X2 (PC TERMINAL)

Cabinet Parts List

Note: Parts order must contain Service Ref. No., Part No., and descriptions.



PID-42AS1

CABINET PARTS

1	6103496481	BUTTON PLATE ASSY-N8FA
2	6103494586	CONTROL BUTTONS-N8FA
3	6103483054	CABINET FRONT-N8FA
4	6103483078	CABINET BACK-N8FA
5	6103483139	DEC IND RC-N8FA
6	6103483160	DEC CONTROL SHEET-N8FA
7	6103487939	DEC CONTROL SHEET A-N8FA
8	6103489759	DEC AV TOP-N8FA
9	6103489742	DEC AV BTM-N8FA
10	6103483269	LID BACK-N8FA
11	6550035745	DEC SP TERMINAL-N8FA
	6550034793	SPACER SHEET-N8FA X2(CABI FRONT, SIDE)
	6550034786	SPACER SHEET A-N8FA X4(CABI FRONT, TOP/BOTTOM)
	9103151350	GASKET C-N2HE X4
	9103276084	GASKET -J3TW X3
	6103483238	HOLDER MAIN PCB-N8FA (METAL PLATE)

	6103483245	HOLDER POWER PCB-N8FA (METAL PLATE)
12	6103483306	MOUNTING VESA-N8FA X2
13	6103483290	VESA BRACKET-N8FA X2
	6550022554	ADHESIVE CLOTH TAPE
	6550024848	FIXER CABLE TIES,L100
	6550035721	SPACER SHEET-N8FA

ACCESSORIES

14	6520024854	REMOCON,JXPLG
	6103499581	CD-ROM,OWNERS MANUAL-N8FA-A
	6103489049	INSTALLATION GUIDE-N8FA

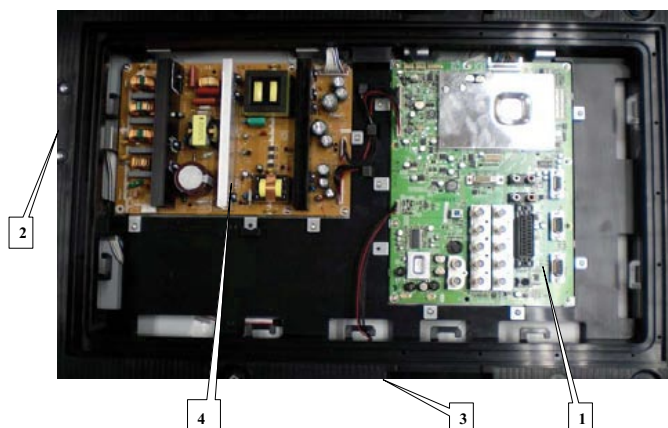
SCREWS

	4120792203	SPECIAL SCREW -N7SRL X2 (PC TERMINAL)
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Chassis Electrical Parts List

CHASSIS ELECTRICAL PARTS LIST

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a $\triangle$ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark $\triangle$.



PID-42AE1

CHASSIS PARTS

	$\triangle$	6550034861	ASSY,PWB,MAIN COMP N8FA
1	$\triangle$	6550034854	ASSY,PWB,MAIN N8FA
2	$\triangle$	6550030511	ASSY,PWB,KEY
3	$\triangle$	6550030504	ASSY,PWB,LED
4	$\triangle$	6550035752	ASSY,PWB,POWER
		9450618087	TERMINAL,BOARD X2

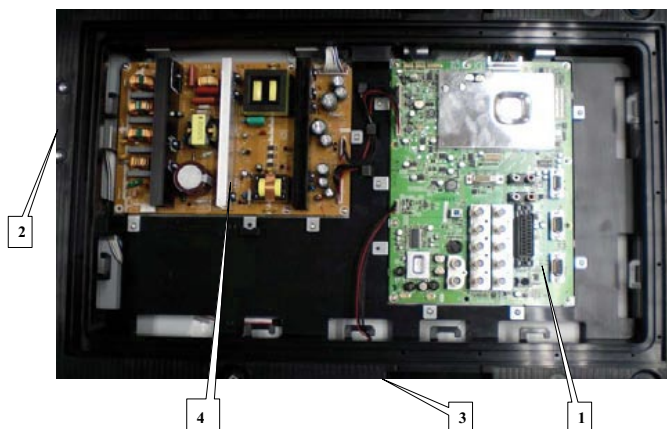
POWER CORD

	$\triangle$	6520031548	CORD,POWER-150MM
UK	$\triangle$	9450541149	CORD,POWER-3.138MK
EUROPE	$\triangle$	9450541156	CORD,POWER-3.0MK
USA	$\triangle$	6520030183	CORD,POWER-1950MM

OTHER COMPONENT(ELECT)

LCD PANEL	6451021021	LCD(LD420WUN-SBA1)
LVDS CABLE	6520031500	CORD 51P,51P-51P(LVDS)
CN3-KQ	9103306347	STANDARD WIRE ASSY-JPN
CN2-KR	6103495224	STANDARD WIRE
K39L-K19L	6103495231	STANDARD WIRE
KJ-39J	6103395722	STANDARD WIRE ASSY-JPN
CN200-CN4	6520027619	NON STANDARD WIRE ASSY
KSPR-SP	6520025431	NON STANDARD WIRE ASSY-JPN
KSPL-SP	6520025424	NON STANDARD WIRE ASSY-JPN

Chassis Electrical Parts List



PID-42AS1

CHASSIS PARTS

	△	6550034861	ASSY,PWB,MAIN COMP N8FA
1	△	6550034854	ASSY,PWB,MAIN N8FA
2	△	6550030511	ASSY,PWB,KEY
3	△	6550030504	ASSY,PWB,LED
4	△	6550035752	ASSY,PWB,POWER
		9450618087	TERMINAL, BOARD X2

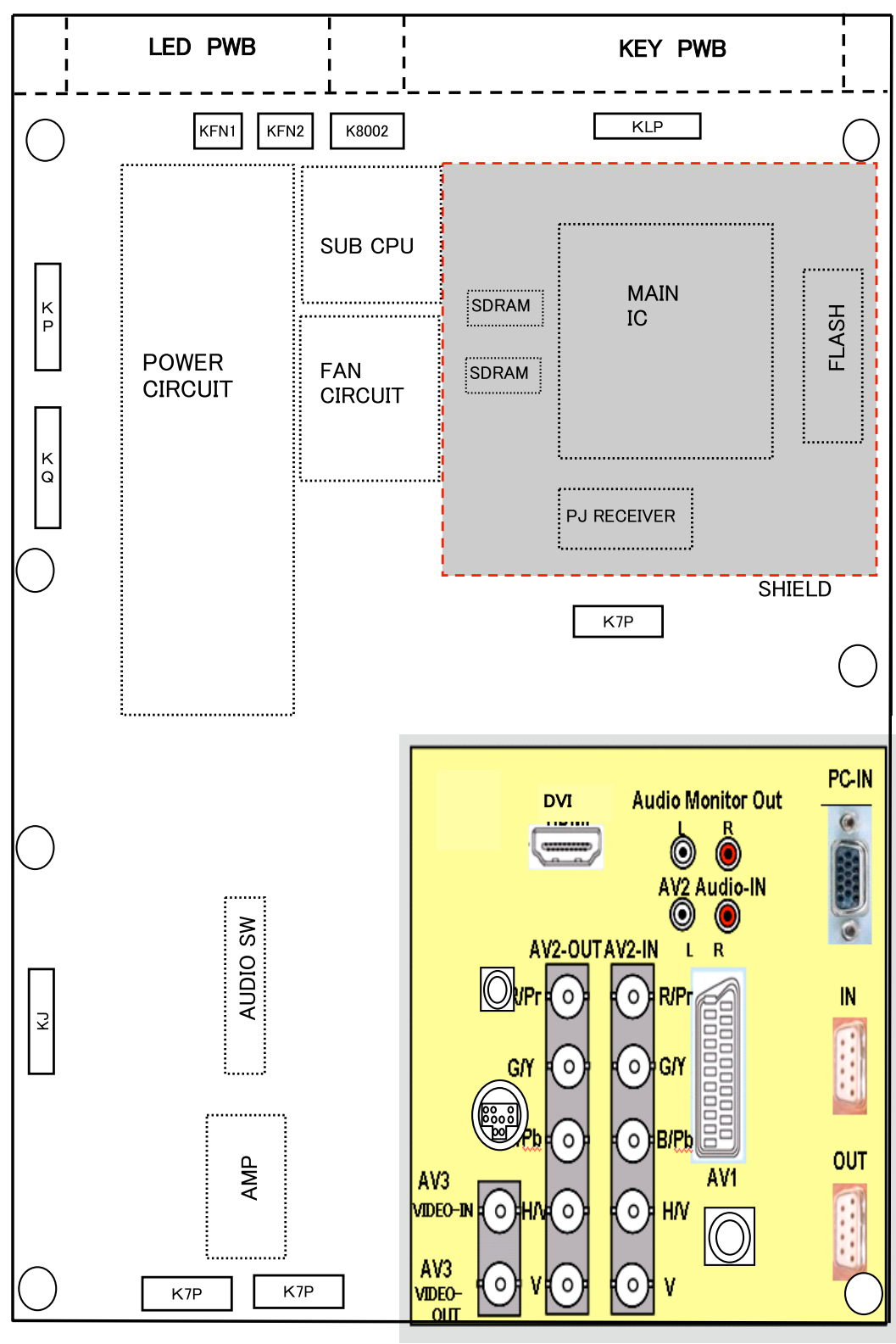
POWER CORD

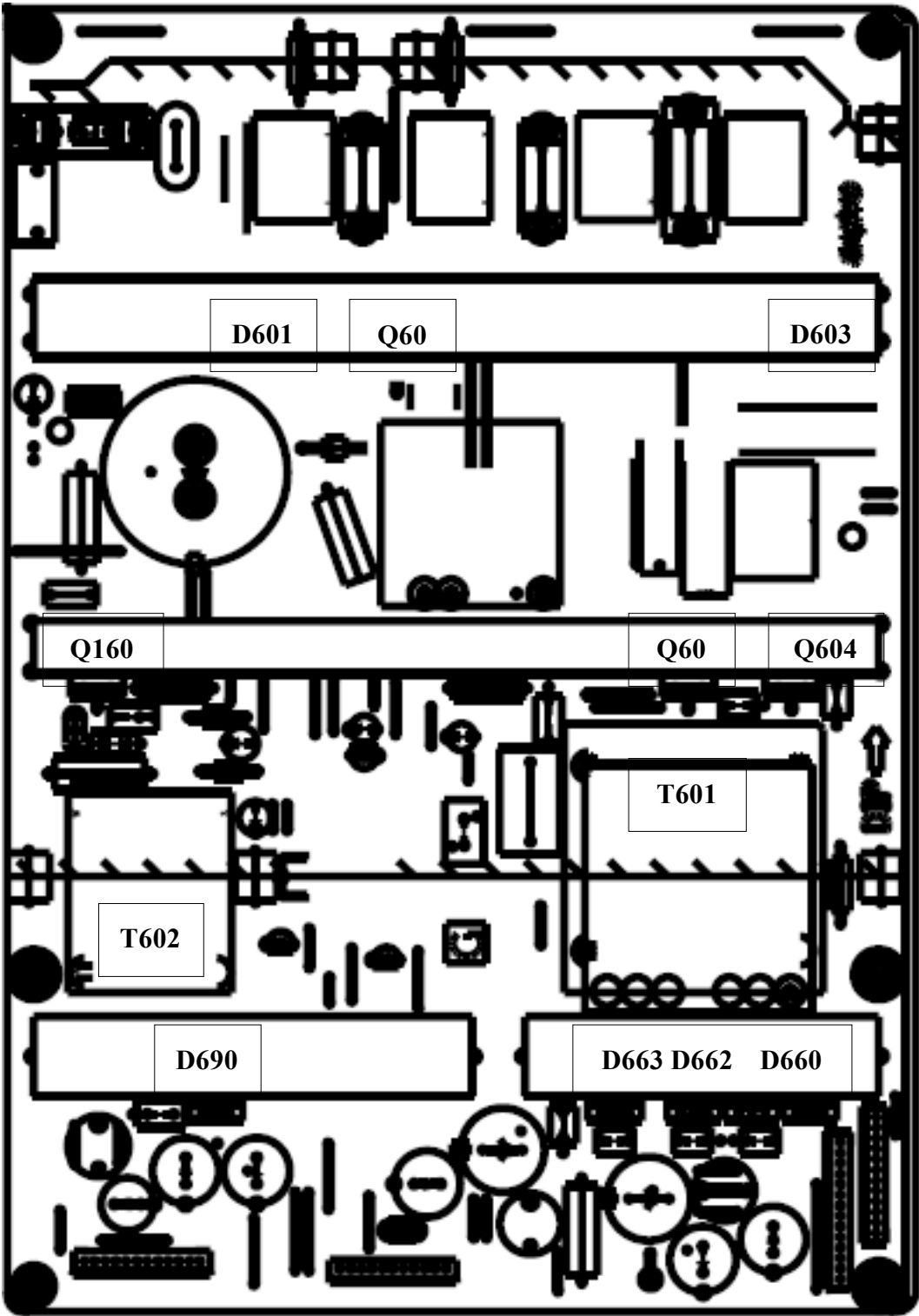
	△	6520031548	CORD,POWER-150MM
UK	△	9450541149	CORD,POWER-3.138MK
EUROPE	△	9450541156	CORD,POWER-3.0MK
USA	△	6520030183	CORD,POWER-1950MM

OTHER COMPONENT(ELECT)

LCD PANEL	6451019530	ASSY,LCD,FHD
LVDS CABLE	6520031500	CORD 51P,51P-51P(LVDS)
CN3-KQ	9103306347	STANDARD WIRE ASSY-JPN
CN2-KR	6103495224	STANDARD WIRE
K39L-K19L	6103495231	STANDARD WIRE
KJ-39J	6103395722	STANDARD WIRE ASSY-JPN
CN200-CN4	6520027619	NON STANDARD WIRE ASSY
KSPR-SP	6520025431	NON STANDARD WIRE ASSY-JPN
KSPL-SP	6520025424	NON STANDARD WIRE ASSY-JPN

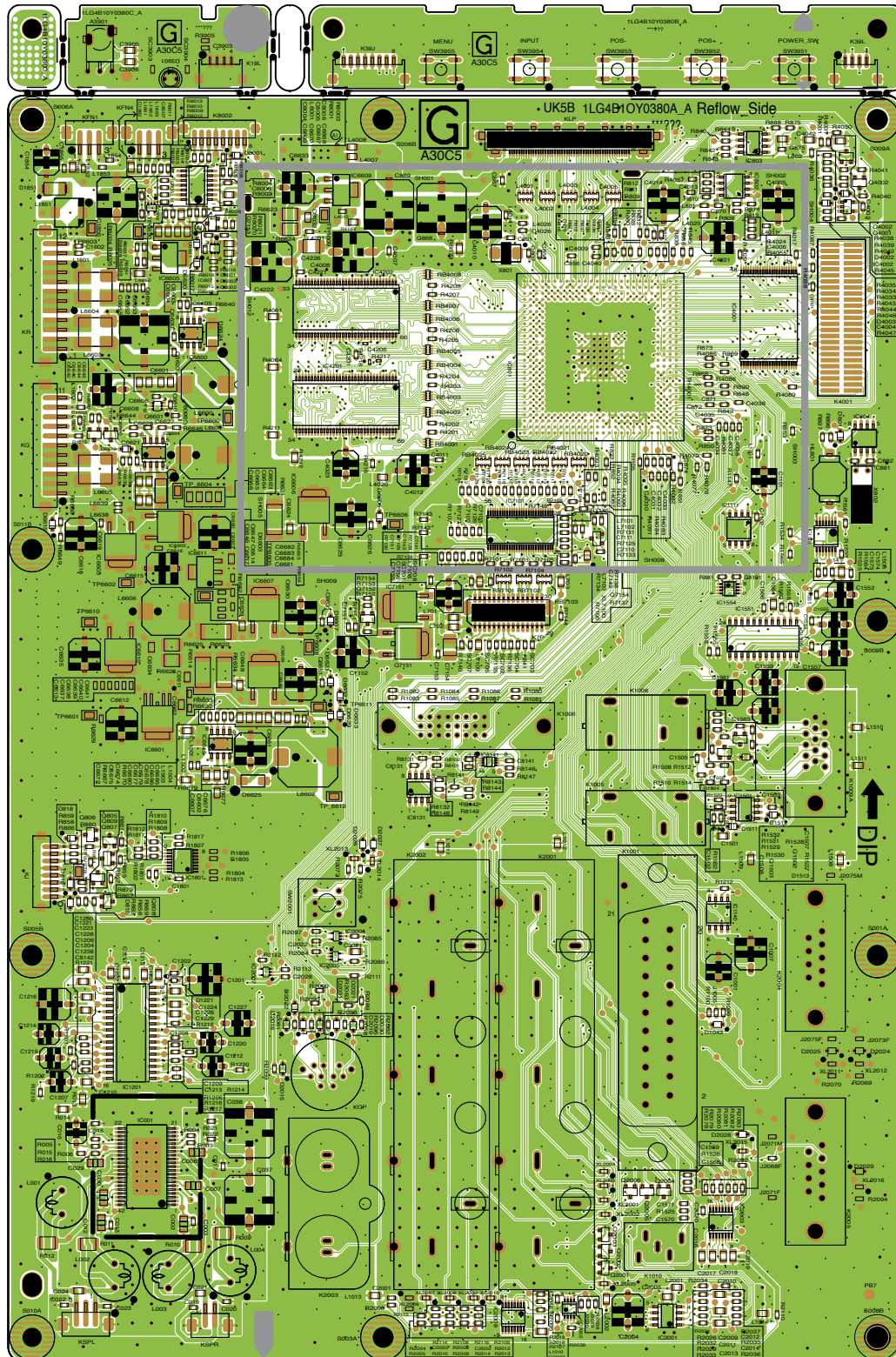
PCB Assemble



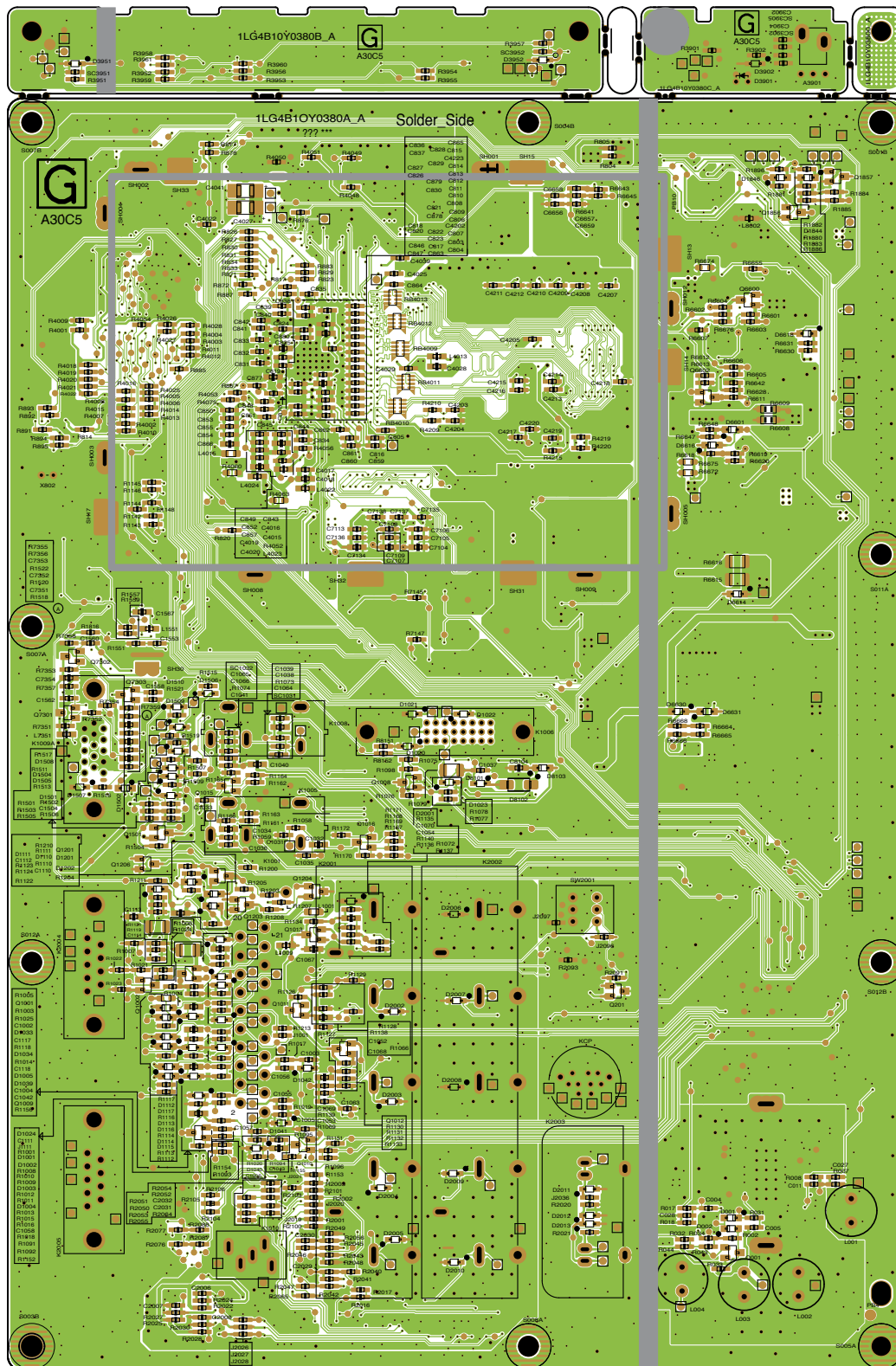


Printed Wiring Board

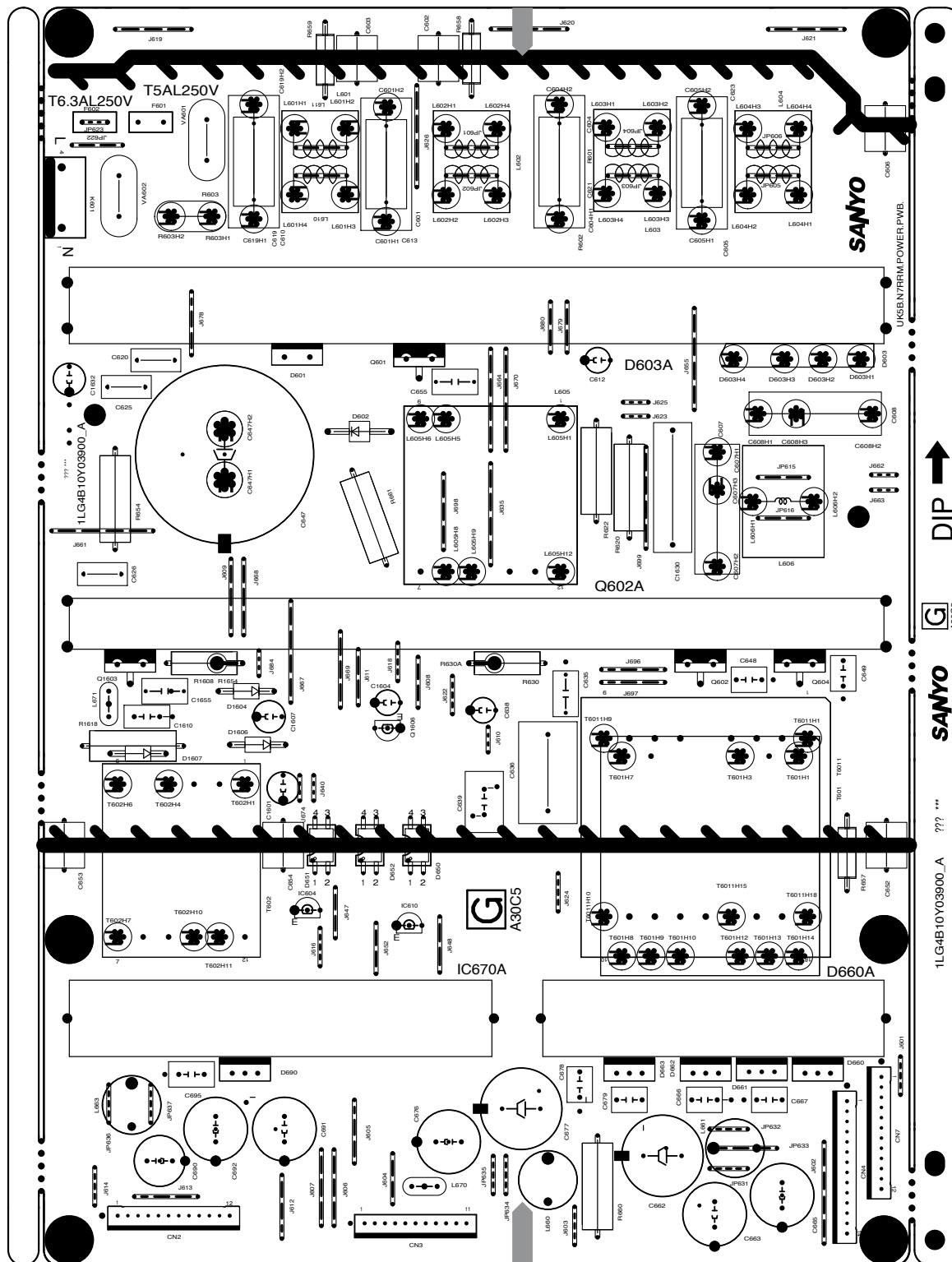
MAIN BOARD (Part Side)



MAIN BOARD (Solder Side)

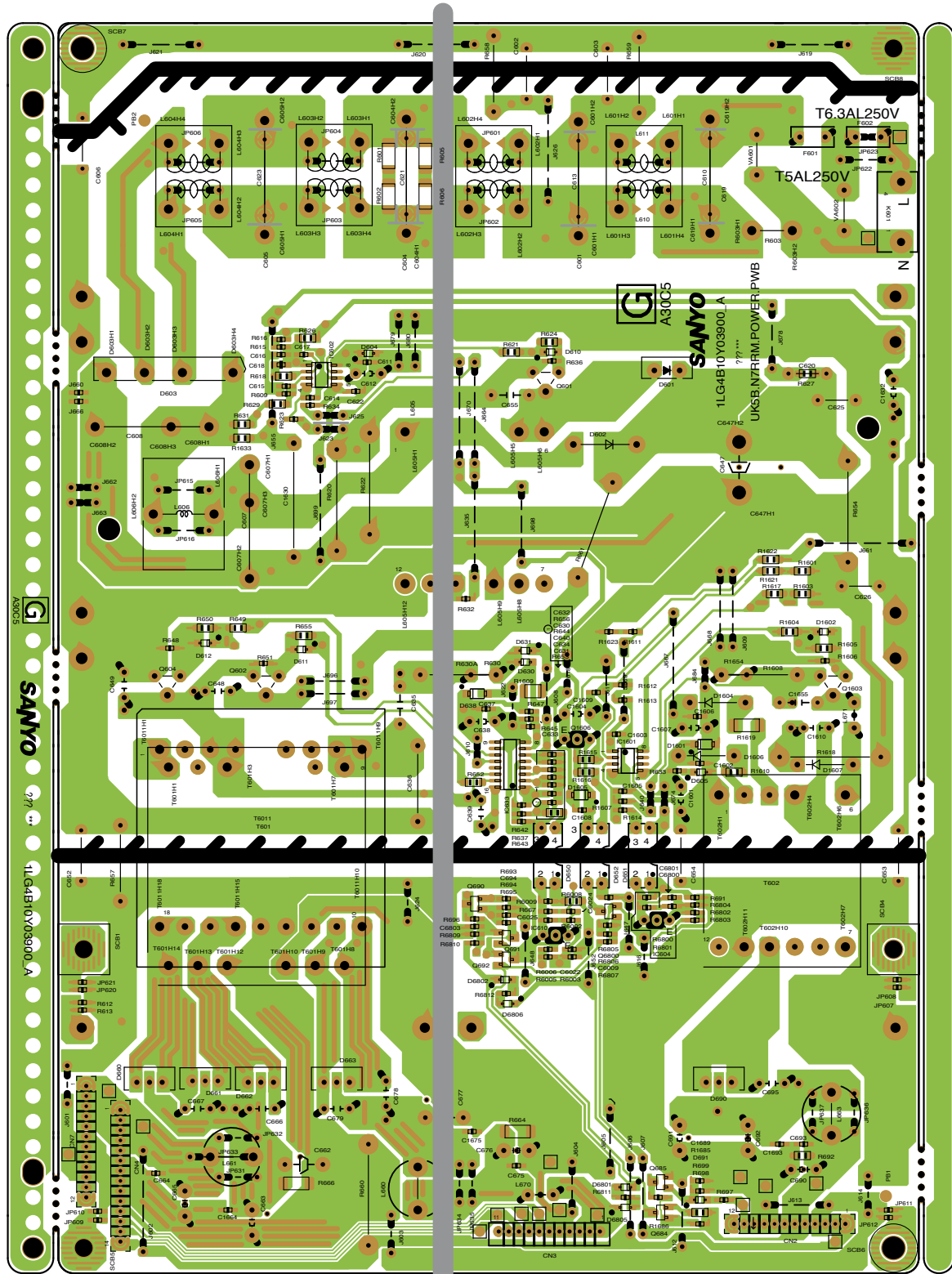


POWER BOARD (Part Side)



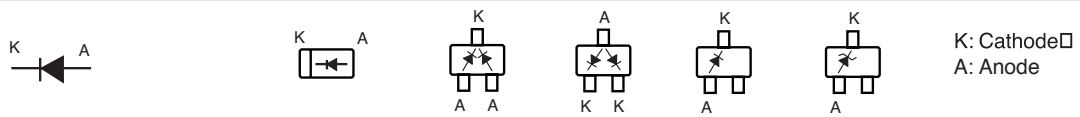
Printed Wiring Board

POWER BOARD (Solder Side)

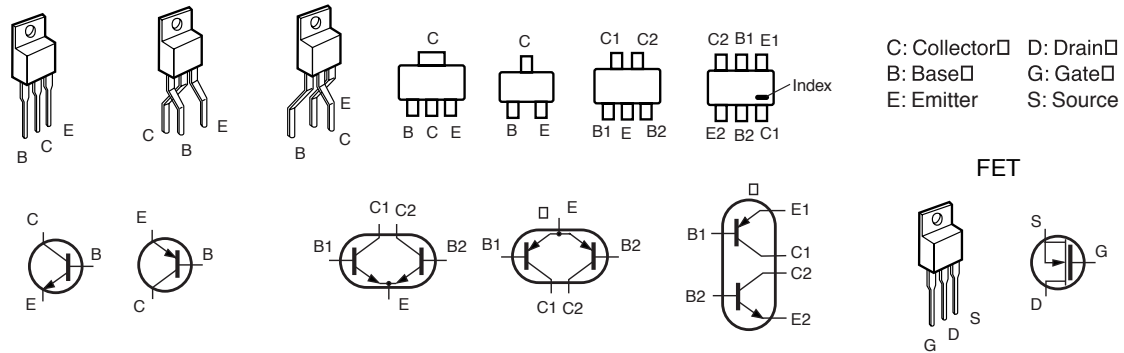


Pin Description of Semiconductors

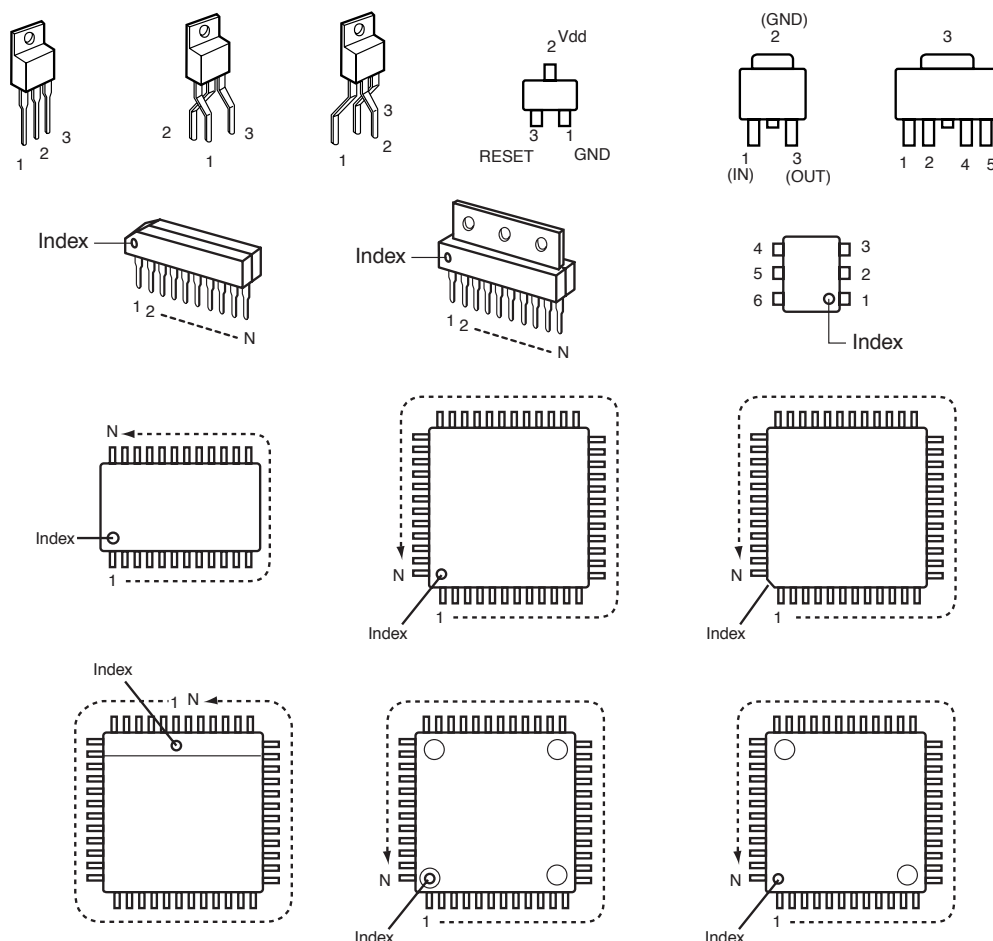
● Diode



● Transistor/FET



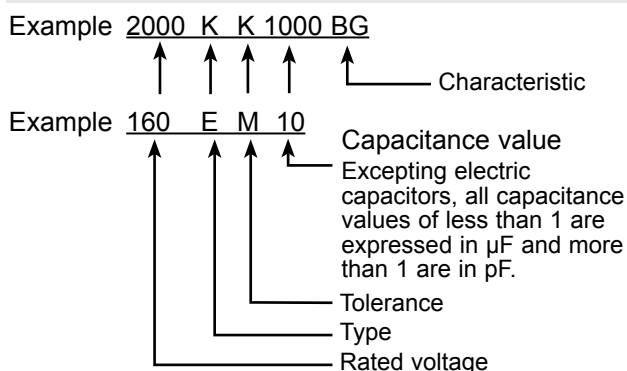
● IC



Parts Description and Reading in Schematic Diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal (1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading



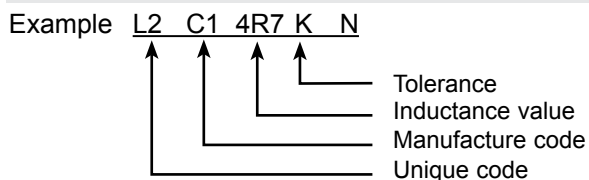
Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypropylene
B	Ceramic (semiconductor)
G	Metalized polyester
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

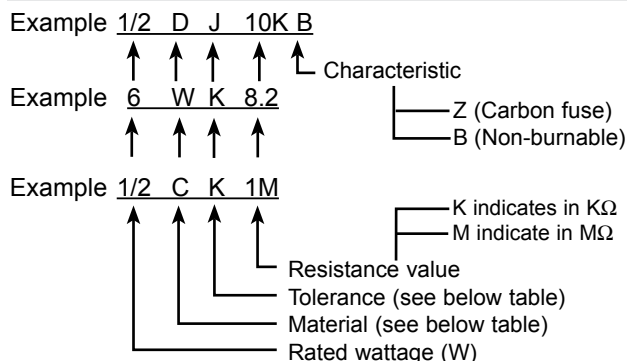
Mark	Tolerance
A	not specified
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
E	± 2.5
H	± 3
J	± 5
K	± 10
M	± 20
N	± 30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	± 0.25	G	± 2
D	± 0.5	J	± 5
S	± 0.3	K	± 10
A	± 0.2	L	± 15
		M	± 20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire winding or cement
H	Ceramic
F	Fusible

Tolerance table

Mark	Tolerance
A	± 0.05
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
J	± 5
K	± 10
M	± 20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

Diode

Mark	Type number
R	1S2076A, 1S2473, 1N4148
AA	1S2076A, 1S2473, 1SS133, 1N4148

Transistor

(1) NPN type

Mark	Type number
--	2SC536 2SC945A 2SC1815 2SC1740S
AD	NF, NG PA, QA Y, GR Q, R, S
AE	NF, NG PA, QA, RA O, Y, GR Q, R, S

(2) PNP type

Mark	Type number
--	2SA608 2SA564A 2SA1015 2SA933S
AB	NF R Y, GR R
AC	NF Q, R O, Y, GR Q, R

(3) Chip type

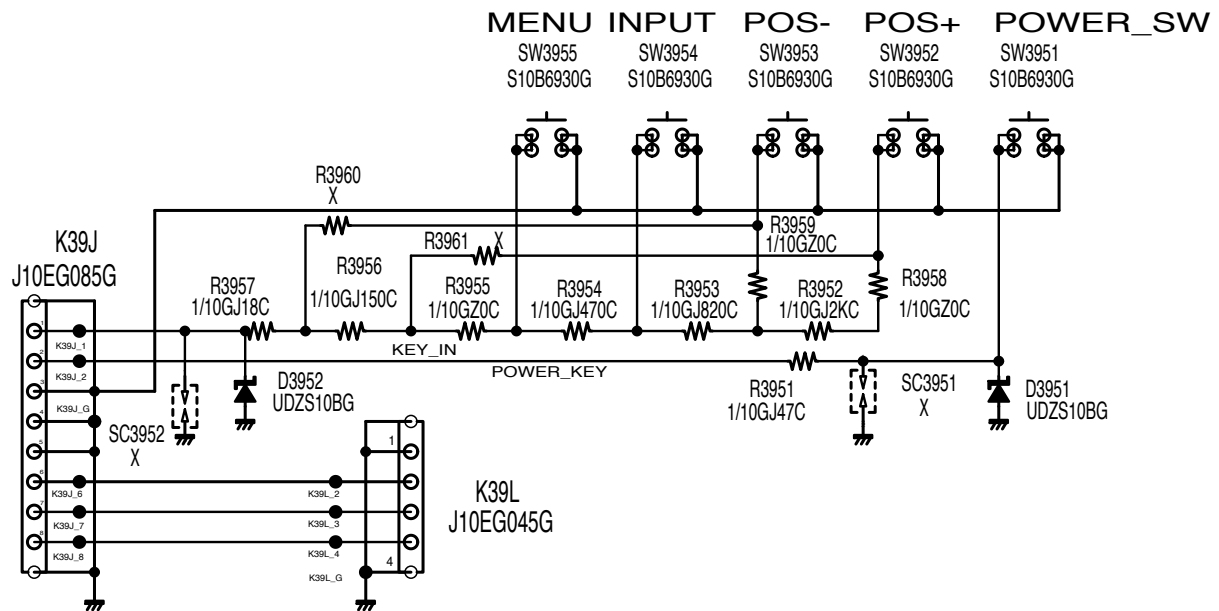
Mark	Type number
--	2SA1179N 2SA1037K 2SA1037AK 2SC2812/N 2SC2412K
AJ	M6, M7 R, S R, S
AH	L6, L7 R, S

LED BOARD



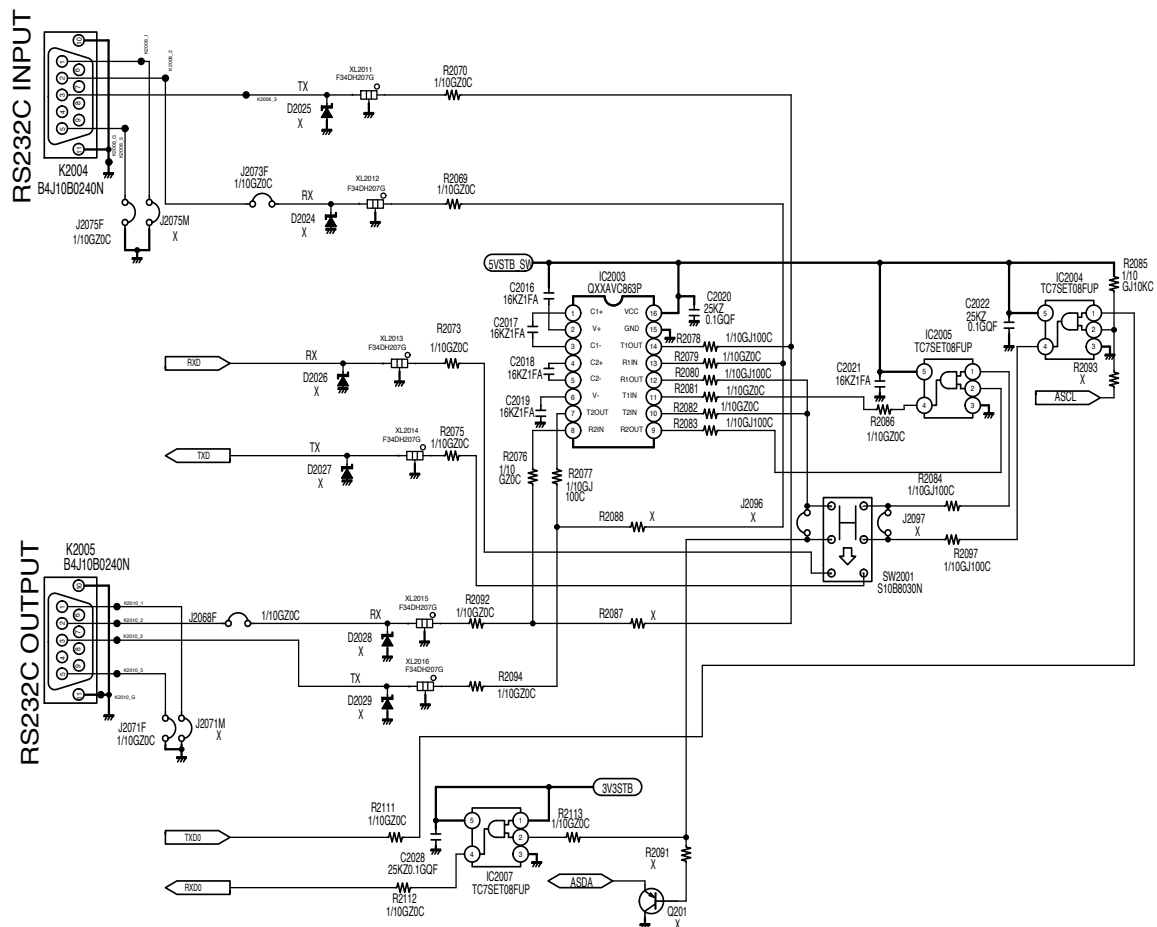
Schematic Diagram

KEY BOARD



Schematic Diagram

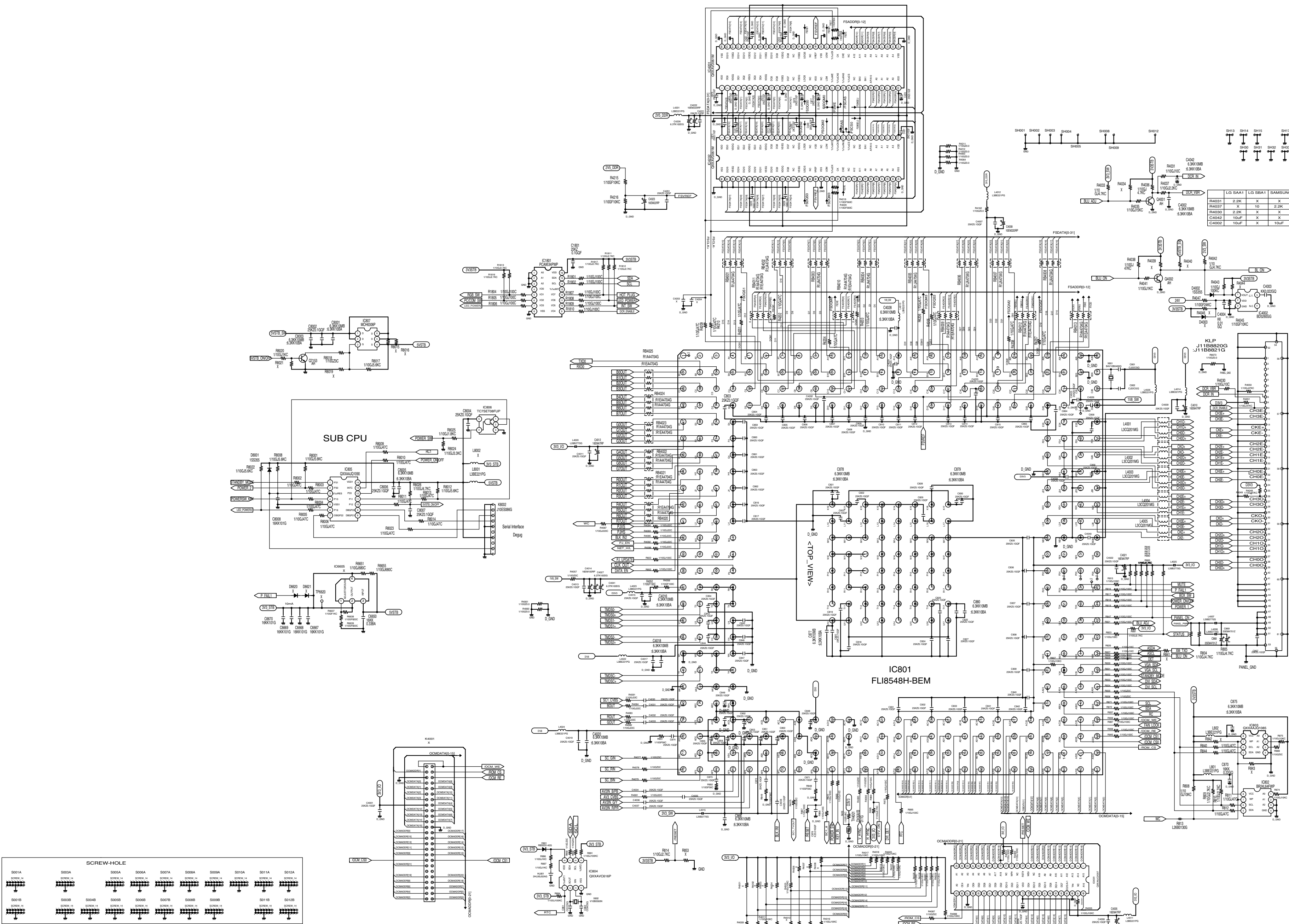
RS232C



SANYO

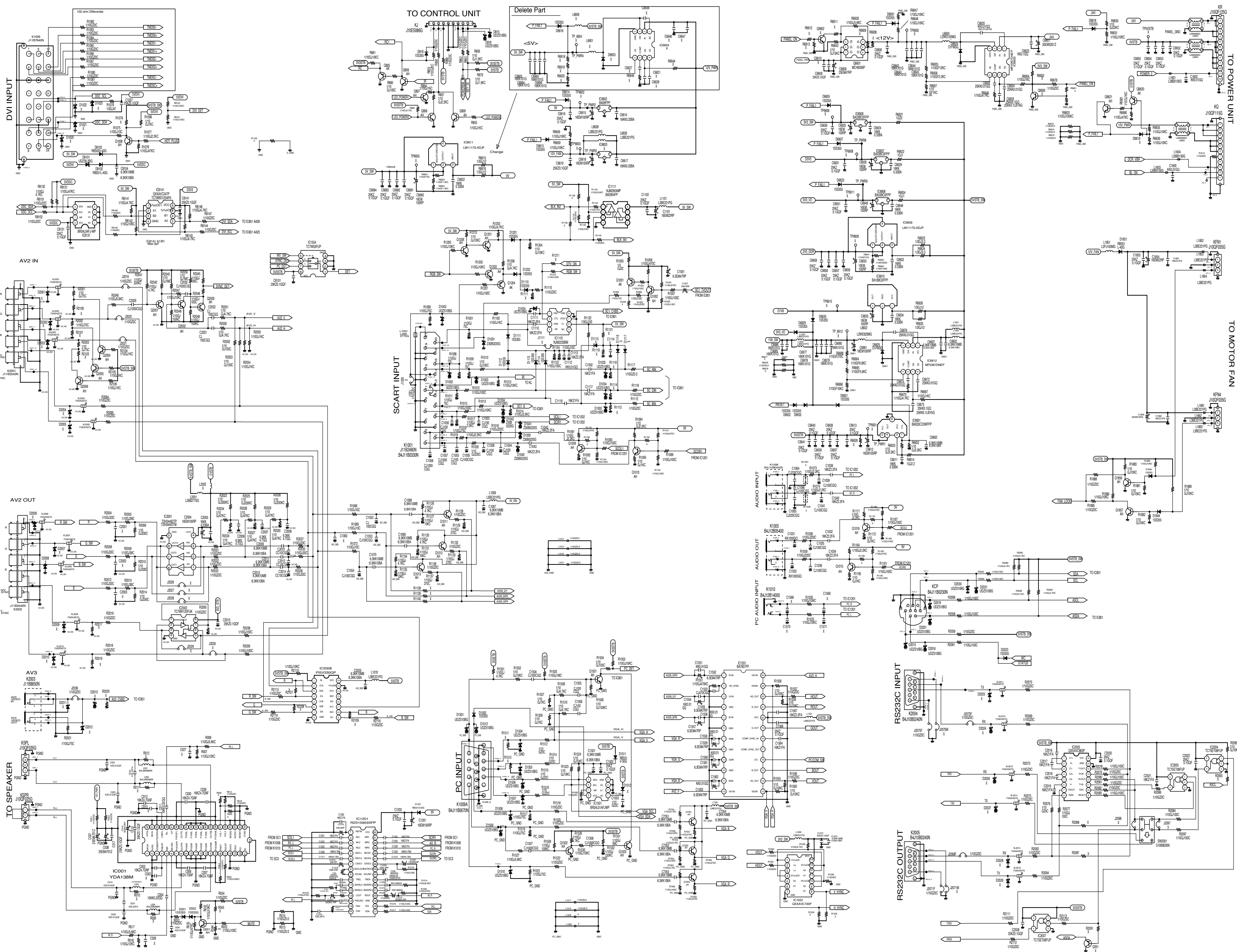
Schematic Diagram

MAIN BOARD 2/1



Schematic Diagram

MAIN BOARD 2/2



POWER BOARD

